

www.FocusOnForests.org

World Land Trust Project Report - March 2003

Forestry Research Programme - Contract No. ZF0109
Prepared for Natural Resources International Ltd.



World Land Trust

Blyth House
Bridge Street
Halesworth
Suffolk IP19 8AB
United Kingdom

Tel: +44 (0) 1986 874 422

Fax: +44 (0) 1986 874 425

Email: projects@worldlandtrust.org

Web: <http://www.worldlandtrust.org>

Reg. Charity No. 1001291



Forestry Research Programme

Natural Resources International Ltd.
Park House
Bradbourne Lane
Aylesford
Kent. ME20 6SN

Tel: +44 (0) 1732 878 686/7

Fax: +44 (1) 1732 220 498/9

Email: info@nrnt.co.uk

Web: <http://www.nrnt.co.uk>

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1. Project Summary

In March 2002, the World Land Trust (WLT) was contracted¹ by the Forestry Research Programme (FRP) to create a "Multi-Media Resource on Tropical Forestry". This would take the form of an interactive website, aimed at supplementing Key Stage 3 teaching of the National Curriculum. The website would aim to address the importance of forests worldwide, outlining how they are being affected by human influence, introducing the concept of sustainability, and giving case studies from projects worldwide. The content of the website would be based on information previously researched by WLT and funded by the Department for International Development (DFID) Development Awareness Fund.

In addition to the end product, the project was also designed to allow capacity building within the WLT, therefore supporting forest and wildlife conservation indirectly. This was achieved by carrying out the website development in-house, instead of sub-contracting a multi-media company, therefore also selecting the cost effective option. The benefits of this included: provision of equipment and software for the WLT office, skills sharing (web-design) for WLT staff; and additional input into the WLT website.

A copy of the approved project proposal can be found in Appendix 1.

2. World Land Trust Background

The World Land Trust is a UK-based, international charity (Reg. Charity No. 1001291), working to purchase and protect biologically important and endangered habitats around the world. WLT works by forming partnerships with local organisations, and assists with the development of sustainable income programmes for local communities. To date, the WLT has helped protect over 300,000 acres of threatened habitat worldwide in countries such as Argentina, Belize, Costa Rica, Ecuador, the Philippines, and the UK.

The mission of WLT is:

- To protect and sustainably manage natural ecosystems of the world, to conserve their biodiversity, with emphasis on threatened habitats and endangered species.
- To develop partnerships with local individuals, communities and organisations to engage support and commitment among the people who live in project areas.
- To raise awareness, in the UK and elsewhere, of the need for conservation, to improve understanding and generate support through education, information and fundraising.

Education plays a large part in WLT activities, and since its inception 1989, WLT has provided an important information service to schools and homes all over the UK. In addition to this, the WLT manages a long-term volunteer programme, encouraging local support, and also training "tomorrow's conservationists", through 6-month internships, the majority of which go on to find full-time employment. WLT are currently in the process of creating an accredited diploma course with the University of East Anglia, in "*Conservation Administration & Management*".

¹ Forestry Research Programme Contract No. ZF0109;

3. Activity Report

3.1 Recruitment of Trainee Web Designer

Peter Taylor, a graduate of Liverpool University, was hired by the World Land Trust to commence a 6-month contract in July 2002. Although, Peter's academic qualification was as a graduate of Zoology, he demonstrated an impressive background in computing and web-design, having designed numerous websites, and had also previously worked within the IT department for Ford.

3.2 Equipment/Software Bought

Computing equipment was purchased after consultation with Peter Taylor (Trainee Web Designer), John Burton (Chief Executive Officer) and Rik Engel (WLT IT Consultant). Web design and graphics software packages were purchased after consultation with Kevin Allenby (local freelance Web Designer), for which charitable discounts were received. Other software was also purchased to enhance the interactive nature of the website.

3.3 Consultancy

A number of different consultants were used throughout the website development. These included:

- Kevin Allenby - local freelance Web Designer
To give training in the use of Dreamweaver and Fireworks (web design and graphics software), as well as training in design layout and structure, and 'search-engine friendly' design.
- Giles Henderson - Garreck Online
To give advice on website promotion and advertising strategy (both on-line and traditional).
- Gemma Johnson - Garreck Online
To give advice on website useability and design layout.

3.4 Meetings & Feedback

NR International Ltd.

Two meetings were held with Hannah Jaenicke of NR International Ltd., on 29th August and 14th October 2002. The purpose of these meetings was to discuss progress of the website development, and to receive feedback.

Halesworth Middle School

A workshop was arranged with a local Halesworth school, involving 30 school children aged between 11 and 13 years old, who voluntarily agreed to review the site and gave feedback from their perspective. Hannah Jaenicke, of NR International Ltd., was also present at this workshop. The children were invited to complete a questionnaire relating to the website, which can be found in Appendix 2.

Overall Site Review

Jill Brand, the original author of the information researched for Focus on Forests, was asked to review the 'end product'. Feedback was given regarding the website textual content, and whether the information was understandable and cohesive within the website format. Staff at the WLT also gave feedback with editorial comments on the content of the site.

3.5 Advertising

Advertising, both online and through journals/publications, will take place following a strategy recommended by consultancy from Giles Henderson of Garreck Online. The advertising for the Focus on Forests website, will be carried out simultaneously with advertising for the book version of Focus on Forests, the publication of which has been funded by DFID Development Awareness Fund.

3.6 Activity Time Line

The original and actual activity time line for the website development can be seen in Appendix 3.

3.7 Financial Report & Budgeting

The following table displays the budget as given in the original project proposal:

Budget Item	Original Budget	Actual Expenditure*	Balance*
Trainee Salary ²	4,550	4,378	172
Equipment & Software	1,500	1,418	82
Training & Consultancy	1,000	1,375	(375)
Certificates/Server Space	200	38	162
Publicity & Advertising	6,000	6,000	0
Miscellaneous ³	750	791	(41)
Total:	14,000	14,000	0

* All figures are given in £ Sterling.

A breakdown of expenditure is given in Appendix 4, which has been organised under the following DFID budget headings: Staff Costs/Fees; Overheads; Travel & Subsistence (UK); Travel & Subsistence (Overseas); Capital Equipment; and Miscellaneous.

² "Trainee salary" is inclusive of actual salary and employers national insurance contribution.

³ "Miscellaneous" is inclusive of Travel & Subsistence; Hire of Meeting Rooms and Recruitment Advertising.

4. Overall Project Review by WLT Project Manger

4.1 Achievement of Aims

Through the development of the 'Focus on Forests' website, the World Land Trust has been able to achieve the following aims set out by initial proposal:

- **Creation of an efficient and interactive website**

The completed website is a professional and attractive information source, providing information on forest conservation issues. Many interactive functions are incorporated within the site, which include definition of scientific/technical words, a comprehensive help page, a search engine, interactive maps and diagrams, and fun quizzes to enhance the educational value of the site.

Advice has been sought by consultants, Garrick On-line, to address the usability of the site. As a result of this consultancy, essential alterations have been made within the site to make it easier to navigate and to find information.

- **Supplementing Key Stage 3 National Curriculum Teaching on Forest Conservation Issues**

The WLT, funded by the DFID Development Awareness Fund in 1999, originally researched the information within the website, with the specific purpose to supplement Key Stage 3 (ages 11 - 13 years old) teaching on forest conservation issues. The information provided by the website includes: global forest types, including distribution and forest structure; the impact that human are having on forests and the need for conservation efforts; an introduction to the concept of sustainability; and case studies from around the world. This was put together and written up by a consultancy group comprising of teachers, education consultants, and conservation experts, thereby ensuring that the information was not only written at the 'right level', but was factually correct.

A workshop was held with a local school in Halesworth, involving 30 children between the ages of 11 and 13 years old. Feedback received from the children indicated that they found the site interesting, and easy to use overall. Areas that the children found too complex were noted and amended. The children also gave useful feedback regarding the design and 'attractiveness' of the site, which has also been taken into account.

- **Ensuring accessibility of information worldwide**

The site has been designed to be fast-loading, with graphics kept to a minimum size. In addition to this, a text based version of the site has been created to further increase accessibility, so to allow efficient usage by legacy systems, typically found in developing countries.

The text version site is also accessible to visually impaired users, as it meets "Bobby"⁴ requirements, which analyses web pages to check for compatibility with computer systems that are able to translate text into audio files.

⁴ Further information can be found at <http://www.cast.org/bobby>.

4.2 Benefits acquired from Focus on Forests

World Land Trust

Developing the website in-house provided WLT with a significant opportunity for capacity building. These have been realised through: skill sharing, where the web designer can train other staff members in website design and management; technical expertise within the office providing assistance to the management of the office IT systems; provision of new equipment and software for the office

In addition to designing the Focus on Forests website, Peter Taylor also took over the management of the WLT website, including the promotion of the organisation over the Internet. This has resulted in a highly significant improvement in fundraising capability for WLT, and has resulted in increased online donations, especially during December 2002. The website will also provide very good PR for the WLT, through links from the Focus on Forest website, as well as the association with a highly professional and educationally valuable site. Advertising will also continue following the launch of the site, and will provide continued PR for WLT.

Benefits to DFID

Through contracting the WLT to create the Focus on Forests, a professional website has been created in a cost-effective manner, which can be accredited as a product of the Forestry Research Programme (FRP). This will be recognised by schools and home users, potentially worldwide.

In addition to the recognition of supporting the teaching of National Curriculum, DFID will benefit from the association with conservation organisations, such as the WLT, and will gain potentially useful contacts for other aspects of its work. The website will also provide very good PR for DFID, through the many links featured on the website.

4.3 Planned Follow Up

One of the most attractive properties of providing information over the Internet is that it can be updated regularly. Therefore, unlike published materials, it will not become obsolete and part of the WLT's commitment to this project involves the continued monitoring and updating of information on the site. This may include making amendments in response to feedback, or the addition of new case studies. Long term additions to the site include various translations of the site.

5. Future Projects

5.1 Production of Booklet

The World Land Trust have recently been granted funding by the DFID Development Awareness Fund, to produce a booklet on Forest Conservation Issues, comprising of the same information presented by the website. These booklets will be available free of charge (except for postage & packaging) to schools and homes within the UK. It is intended that the booklets will also contain a CD-Rom of the website, as well as other education materials from WLT, including video clips and power point presentations.

5.2 Endangered Animals Website to compliment Focus on Forests

Following the success of the Focus on Forests website, WLT intend to create a separate, but similar site, focusing on Endangered Species. Sponsorship is currently being sought, the proposal of which can be found in Appendix 5.

Focus on Forests

The following pages are taken from Focus on Forests and represent the site as of 10th March 2003. Some of the text will appear smaller than it would normally on screen. At the top of every page appears the menu bar (right) which provides the user with quick links to various parts of the site, and access to a site search.

The best way to view Focus on Forests is on the web - find it at:

www.FocusonForests.org





Chapters

Introduction

- 1: Shrinking forests
- 2: Belize
- 3: Good & bad news
- 4: Ekuri forest, Nigeria
- 5: More to think about
- 6: Six case studies
- 7: The future

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Welcome to Focus on Forests

The aim of this site is to tell you about some of the issues facing forests around the world today.

Start exploring [Focus on Forests](#) →

Focus on Forests has been written by the World Land Trust, with funding from **DEID**. Any comments can be emailed to peter@worldlandtrust.org

Focus on Forests has been written for students studying **keystone 3** (11 to 14 year olds) but contains information that would be useful to anyone with an interest in forest issues.

For teachers there is a **special section** of the site with an online handbook.

This site will soon also be available as a CD rom, with high quality graphics, and as a book (more.informing@land).



I'm the helping chameleon and I am your guide through the website. Some words are highlighted, if you click on them I will try to explain what they mean. I also appear from time to time with useful links and facts.



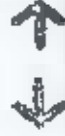
Introduction

Focus on forests is divided into chapters - while you're in each chapter, a list of pages will appear in the box on the left hand side of the screen. Words that have been highlighted can be clicked on to find out what they mean.

- Chapter 1 is an Introduction to Forests, and explains why they are important, and some of the threats faced by Forests in the World today.
- Chapter 2 is about a sustainable project in Belize.
- Chapter 3 is about good and bad news for forests.
- Chapter 4 is a case study of a Forest that was saved in Nigeria.
- Chapter 5 details some more of the issues facing forests
- Chapter 6 gives some more examples.
- Chapter 7 is about the future, and what you can do to help forests



A Tree Sloth from Belize



Use the arrows to move between pages in the chapter.



Extra information (usually a link) is signalled by this icon.



The chameleon highlights useful information and links.

If you get stuck, click on the help link at the top of the page.

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Map page



Forest & Place Maps:

Choose a map from the list - the map will open in a new page - use the back button on your browser to return.



please choose..



you can also find maps of the world at www.myltimaps.co.uk

Chapter 1

Introduction

Map page

↳ Shrinking Forests

↳ Why forests matter

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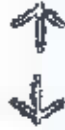
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Shrinking Forests

The first forests existed about 400 million years ago and they have been evolving ever since. There are now many different types and there are different ways of grouping and naming them. The world forests map shows where the two major types of 'moist' forest are located. 'Moist' is a general description indicating that there is a lot of rainfall, all year round. Tropical moist forest is found between the tropic of cancer and the tropic of capricorn and the temperate moist forests are north and south of these latitudes.

Nearly all these forests are shrinking. Some loss occurs accidentally, through natural fire or hurricanes, for example, but these areas usually grow again. However, most of the deforestation is caused by people, either because trees are cut for fuel, timber or wood pulp and not replaced, or because the land is needed for something else. This might be growing crops on farms or plantations, or raising livestock, or it might be to make way for mining, dams, roads and settlements.



(Above) Mangroves grow on muddy coasts with their roots washed by tidal waters. These roots provide a sheltered space which acts as a fish 'nursery' for many species. Mangrove forests are being cut down throughout the tropics. The wood is greatly in demand to make scaffolding and in building construction. The wood is even used for charcoal in British barbecues



This site focuses mainly on tropical rainforest - find out more about [Forests in the World](#)



Chapter 1

Introduction

Map page

Shrinking Forests

► Why forests matter

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Why forests matter

Homes for people

About a million hunter-gatherers live in forest, depending on it almost entirely for food, shelter, clothing, fresh water, medicines and other basic necessities.

Between 100 and 300 million people live on the edges of forests and use its products for many of their daily needs.



Timber

About 1500 million m³ of wood are harvested world-wide every year for timber, (for making furniture, buildings, railways and docks etc), and to produce wood pulp for paper. Britain has to import about half the wood products it needs, including a great deal of hardwood from tropical countries.



Climate regulation

One of the causes of global warming is increasing levels of carbon dioxide in the air. Plants make their own food through a process of photosynthesis. They take up carbon dioxide from the air and, using the energy of light from the sun, they turn it into carbon and give off the oxygen. Because trees are so big, they can 'store' a great deal of carbon.



Forest products

Forests are the source of resins and latex, bamboo and rattan, ingredients for cosmetics and many foods and medicines. Some are used by local people, others are sold world-wide. Some products, such as rubber, were originally from natural forests but are now largely grown in plantations. Others, such as brazil nuts, are still mostly harvested from the wild.



A gene pool

Wood for fuel

Over half the world's population uses wood (sometimes in the form of charcoal) for cooking and heating their homes. In 1996, in Africa as a whole, nearly 520 million m³ of wood were used as fuel. This compares with 80 million m³ used for all other purposes (timber, paper, etc).



Water retention

Rain soaks into the leaf litter and gradually seeps and trickles its way underground where it eventually joins streams and rivers. On open land, the rain is more likely to run off the surface very quickly, sometimes causing flash floods.



A place for leisure and spiritual refreshment

In Britain, at least 50 million visits are made each year to our forests. Trees have a special meaning in many cultures; the Tree of Life is part of the first story in the Bible; the Hindu Matsya Purana said 1,500 years ago, "He who plants even one tree goes directly to heaven," sacred groves were found in ancient Greece and are still honoured today by many African and Asian villagers.



Soil protection

The leaves of the trees and shrubs stop the worst impact of heavy rainfall on the soil and the roots act as a kind of underground net, holding the soil in place and protecting it from being washed or blown away. The tree canopy also protects the soil surface from the strong sun which otherwise could bake it hard.



A home for wildlife



Forests in general, and rainforests in particular, contain a huge range of plants and animals. Many of our common foods such as tea, rice, corn and chickens, originated in rainforests, although they are now grown or raised commercially in quite different parts of the world. Cross-breeding of modern plants with those found wild in the forests often leads to improved crops. Over a quarter of all common medicines have been developed from material first found in tropical rainforests. In the past, people who traditionally lived in the forest often provided the knowledge on which the research was based. New species and new uses for known species are continually being discovered.

In Britain, ancient forest supports a larger number of insects than any other kind of habitat. Animals which are dependent on the forest, and which we are in danger of losing, include the dormouse, the stag beetle, the violet click beetle, the firecrest and the nightingale. The Amazon rainforest contains several million animal species, mostly insects, but there are 3,000 known species of land vertebrates and 2000 known species of freshwater fish.



Although Britain has lost most of its own forest, much of our way of life depends on the forests of other countries. Forests are clearly vital, not only to the people who live in or near them, but to the whole world. However, people's need for timber or for other economic uses of the land are also important. How can we preserve the forests and still find ways for people to use them to make a living? The case study which follows, and others later in the site, show some examples of what can be done.

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The Rio Bravo Forest
Sustainable Timber
Ecotourism
Other projects

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Belize and its forests



Map showing the location of Belize (click for more detail)

Belize is a small country in Central America with a population of only about 240,000. About a third of the people make their living from some kind of agriculture. Much of the food is eaten locally, but Belize also exports food. The main export crops are bananas, sugar cane and citrus fruits (although some people suggest that marijuana now brings in more foreign money). However, more than half the land area is still covered with the original vegetation, much of it tropical rainforest.



You can find out more about tropical rainforests or visit our cross-section of a rainforest



Pictures: Tapirs and jaguars are thriving in Belize although they are now extinct in El Salvador and rare in Honduras. Illustrations © copyright Bruce Pearson, taken from the Collins Guide to Rare Mammals of the World



The Belize forest is particularly important as far as plants and animals are concerned. Central America is a crossroads between the temperate north and the tropical south. Animals from the south include anteaters, possums, primates and rodents such as the paca and agouti. Animals from the north include pumas, raccoons, deer, peccaries and squirrels. There are over 130 species of mammal in Belize, some of which are under threat in neighbouring countries where much of the forest has disappeared.

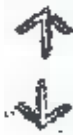


Balancing the books

The Government of Belize knows how precious its forests and wildlife are and there are a number of conservation areas in the country. But the Government also knows that its people need work, they need food and they need products which can be exported to earn foreign currency. With this Belize can buy goods the country does not produce itself, pay for developments to improve people's lives and repay its foreign debts

Food, jobs and foreign exchange could be provided if the forests were cleared for raising cattle or growing crops, either for the local people themselves or for export. The government could also allow many of the trees to be cut down for timber, but this needs to be carefully controlled if the forest is not to be destroyed.

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If the forests are to be preserved they must be made to 'pay their way'



Chapter 2

- Belize
- Revealing the books
- The Rio Bravo Forest
- Sustainable timber
- Ecotourism
- Other projects



The Rio Bravo Forest

One area where people are attempting to show how the forest can 'pay for itself' in a number of different ways is the Rio Bravo Conservation and Management Area (RBCMA). This area of forest is particularly important, both to Belize and to the world as a whole. It is supported by the Belize government and local authorities, by international Non-Governmental Organisations (NGOs) and by the European Union.

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So, what is Programme for Belize doing in this special forest to earn money from it?

Right: the Programme for Belize logo. The World Land Trust still supports this project through "Friends of Belize".



The Rio Bravo forest is special because it:

- is in an area where other local forests are fast disappearing to large-scale farming
- has the most diverse array of vegetation types of any protected area of Belize
- supports 12 animal species which are endangered elsewhere, including the Morelets crocodile, jaguar, ocelot and margay
- is linked to adjacent reserves, which together form the largest forest block in central America
- is one of most important conservation areas of the tropical zone of the Americas.



The RBCMA is owned and managed by Programme for Belize, a local NGO. It covers about 100,000 ha (hectares), which is about 4% of the whole country. Some of the land, about 37,000 ha, had previously belonged to a private logging company and was bought by the Coca Cola company to be turned into an orange tree plantation. Following local and international pressure by those who wanted the forest to remain, Coca Cola instead donated the land to the project. Another part of the forest was bought and donated by an NGO called World Land Trust (WLT) based in Britain. The money was raised from individuals, from companies such as Tate and Lyle and the Today newspaper and from schoolchildren. It is still supported by WLT.

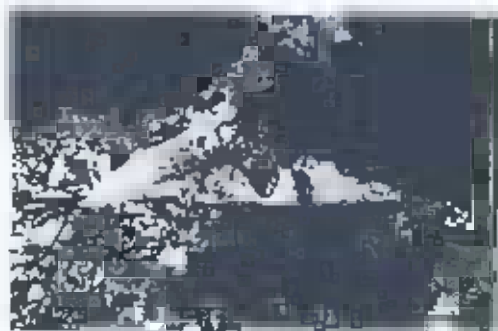
Left: map showing the area of the RBCMA inside the black outline. Click for a detailed map of the RBCMA (close the window to return)



The sustainable timber programme



The word 'sustainable' is used a lot by economists, environmentalists, politicians and geographers. When you have worked through this site and some of the activities, you should have a good idea of what is sustainable and what is not.



Above: Mahogany produces a beautiful wood which is very popular for furniture. This - and the fact it is difficult to grow in plantations - makes it the most valuable tree in the Belize forests where it has been harvested for the last 150 years. Photo: Greenpeace (news story)

On the RBMCA there are at least 200 tree species. Over 60 of these are useful as timber and could be sold on the international market. The aim of the project is to show how timber can be harvested commercially, and almost continuously, but with minimum damage to the environment and wildlife. In fact, the project aims to improve the 'quality' of the forest. (It is not in itself a commercial operation as any profits will be go towards further conservation work.) Because the life cycle of trees is so long and the ecology of the rainforest is so complex, experiments have to be long term. Most commercial logging companies would not be willing to do it.

You can find out more about The
 Tutubut Extirpation Zone Plan



Not all of the RBMCA is being logged. The land donated by WLT is being kept as a Totally Protected Area and some other parts of the forest are not suitable for logging. Less than 20% of the area is being used for timber extraction (felling and transporting trees) starting on land donated by Coca-Cola. Some logging had already recently taken place on this land. For this area, a strict plan has been worked out to make sure that environmental damage is limited but that enough good quality timber can be harvested every year to make a profit.

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Ecotourism

Logging alone cannot make enough profit to support the conservation area and in 2002, 60% of PIB's income came from educational visits by students from the USA and from tourism. This is not the usual tourism of holiday brochures but what is called 'ecotourism'. This word sometimes just means holidays which focus on wildlife and natural beauty, but it should mean much more. Real ecotourism makes as little impact as possible on the environment; respects the culture of local people and ensures that most of the money paid out by the tourists stays in the local economy. It can also involve some kind of education for the travellers about the local conservation issues.

Right: A 19th century picture of an Ocellated Turkey, an endangered species found only in a small area of Belize, Mexico and Guatemala. Numbers in the Rio Bravo forest are increasing and visitors can see them at close quarters.



You can find out more
about Rio Bravo
ecotourism



Chapter 2:

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Other Projects



Left: Experiments are being conducted into micropropagation – dividing miniature plants to multiply them. Many rainforest plants are popular in the industrialised countries as houseplants and it is hoped that soon plants from the Rio Bravo will be on sale in the UK.

Right: Experiments are being carried out into the medicinal properties of a wild melon which has been used locally for centuries in treating disease

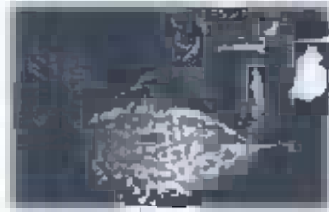
Chicle, from the sapodilla tree, is what chewing gum was originally made from and investigations are going on to see if it can be produced commercially. Every seven years, the gum is 'tapped' by making cuts in the bark which allow the gum to ooze out and be collected. PBG is also working on other products, such as honey and thatch, to see if they could earn enough money to make them worth while.



Because of the way the RBCMA is run, it has been awarded Forest Stewardship Council certification. What is this award and why does it matter?



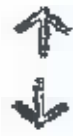
you can find out more about Chicle and even order some at www.tunglegum.com



Chopard's
The good news
The bad news
Problems with tourism
The disappearing wildlife



The good news



The Forest Stewardship Council (FSC) was set up in the early 1990s with the support of World Wildlife Fund (WWF). At its first meeting, foresters, timber traders and environmentalists agreed on their overall aim: "To promote management of the world's forests that is environmentally appropriate, socially beneficial and economically viable."

The FSC is now based in Oaxaca, Mexico. It grants licences to organisations which, in turn, award the certification to businesses producing timber or other forest products. Each one is investigated thoroughly as to the quality of its forest management. By Autumn 1998, more than 10 million hectares of forest, an area half the size of the UK, had been certified. The FSC products need buyers and many manufacturing and retail companies in the UK have agreed to work towards stocking only those forest products which carry the FSC logo. WWF started the 95+ Group, consisting of businesses which have made this pledge. By 1999, there were 89 on the list. They include wallpaper makers and giant DIY chainstores, stationery manufacturers and cosmetic shops and a host of others



Many musical instruments are traditionally made from timbers that are considered threatened. Gibson is one company that is committed to using only certified wood and this prototype guitar, made of maple, chechen and mahogany, bears the FSC logo - check out their website here.

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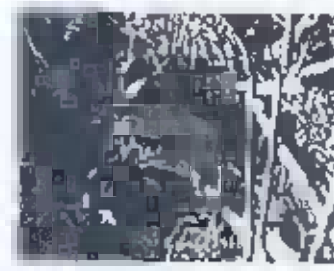
Chapter 10
 The good news
 The bad news
 Problems with tourism
 Disappearing wildlife

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The bad news

The world's demand for timber and paper means there is much international trade in these products. Some timber companies are now large, very rich, transnationals, with Malaysians logging in Guyana, Indonesians in Brazil, Koreans in Siberia, Japanese in Papua New Guinea and French companies in Gabon. The power they wield often leads to a clash of interests with governments, or between governments, landowners and local people. The profits to be made also sometimes lead to corruption of government officials. Unfortunately, some logging companies, unlike PFB and others which have FSC certification, have no long-term interest in the forests, the wildlife or the local people. This can lead to extraction of trees without consideration for future harvests. In some places, for example in the North West Pacific area of Canada and the USA and in the Philippines, huge areas of ancient forest are being clear-felled (all the trees cut).



Right: photograph of illegal logging - sometimes logging can be on a small scale like this, or it can be carried out on an industrial scale with large machinery.



Problems with logging

- Vietnamese loggers are taking thousands of cubic metres of valuable timber from Cambodia, despite the Cambodian Government's 1996 ban on the trade.
- Incompetent felling and extracting a Brazilian mahogany tree kills or damages an average of 27 other trees of over 18cm diameter.
- In Brazil it is reckoned that more than 70% of the wood harvested is wasted in the production process and ends up being burned.



Tourism



PTB knew that tourism could bring them a considerable income to help with the preservation of their forest. In 1996 there were 592 million international tourist arrivals and about a quarter of these journeys were 'long haul flights'. Tourism can be a valuable source of local employment and foreign exchange for the developing countries, which often have just what tourists from the richer countries want - unspoilt countryside, wildlife, 'exotic' culture, beaches and clear waters. But unless carefully controlled, as in the Rio Brayo forest, it may not bring the expected benefits.



Check out our list of [problems with tourism](#)



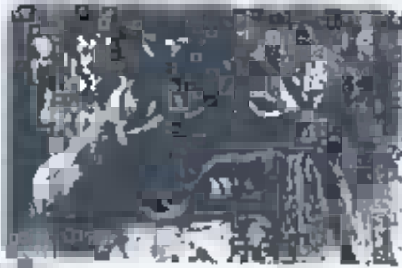
Above: Skyrail
Photograph from their website.

The Skyrail cableway in Queensland, Australia, was constructed so that tourists could see the rainforest from high up in the trees. Although it was designed to be 'environment friendly' protesters tried to stop it because they said it was damaging for the forest and desecrated the Aboriginal cultural and spiritual heritage.

What do you think? check out the Skyrail [website](#) and read this [news item](#) about the protests against it.



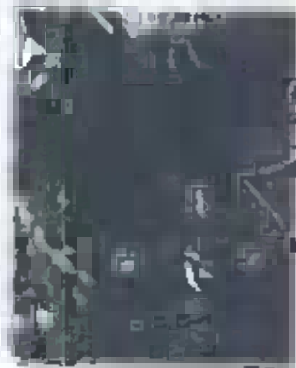
Disappearing wildlife



One of the reasons the Rio Bravo forest has the FSC certificate is that it provides a safe haven for wildlife. A United Nations survey suggested that between 2 and 25% of all species in tropical forests (plant and animal) will die out in next 25-30 years.

If forest patches are too small, many species cannot survive. Even when a forest is just damaged or thinned, loss of food and nest sites and affect animals, and climbing plants and epiphytes lose their growing sites. Perhaps most at risk are the insects, millipedes and other small creatures which are very sensitive to small changes in their habitat.

On the other hand, selective logging (removing single trees) has been shown to actually increase the number and diversity of animals. In the clearings, tree species with fleshy fruits do well and are able to support more of the animals which feed on these fruits.



Left: The Golden Lion Tamarin is just one of more than 170 animal species under threat in the Atlantic forest of Brazil.

Sumatra and Borneo are now the only places where Orangutans (pictured right) are found in the wild and their habitat is shrinking fast. Many have been killed by huge fires and others eaten by starving farmers whose crops have been wiped out.

Right: Orangutan illustration © Bruce Pearson. Taken from the Catline Guide to Rare Mammals



Despite the gloomy picture in some parts of the world, Programme for Belize shows that it is possible to make money by harvesting timber and encouraging tourists, whilst still preserving the wildlife. The next case study shows a different way a forest can be made to 'pay its way' with minimal damage to the environment

Chapter 4

Nigeria and its forests

The Ekuri forest

Threats to the forest

Solutions

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Nigeria and its forests



Nigeria, once in the heart of the tropical rainforest belt, has lost about 95% of its total forest cover and now has to import 75% of the timber it needs for its own purposes. Until recently, forests in the east were largely spared, because the terrain made it difficult for heavy machinery and road building. Now that the western forests have almost gone and roads in the east have improved, logging companies are moving eastwards. In 1991, the government set up the Cross River National Park in order to protect Nigeria's last large remaining area of rainforest. This forest is particularly important because it is one of the most species rich in Africa. As well as the huge diversity of plant life, many endangered animal species live there, including gorillas, leopards, chimpanzees, forest elephants and drill monkeys.

Around the park there is a belt of land called the Support Zone, which is also mostly forest. It acts as 'buffer' area between the park and farmland further away. There are 105 villages in the Support Zone.

Check out this Nigerian Government website about national parks





The Ekuri Community forest



The villagers have traditionally hunted animals for food. This 'bushmeat' is an important part of their diet and also brings in money when sold in the towns and cities. They also collect and use at least 100 different non-timber forest products (NTFPs). These include food and medicinal plants, but also the raw materials for making cooking utensils, furniture, tools and buildings. Some of these products are also sold to the townspeople. The villagers practice 'shifting cultivation'. This means they clear a small area of forest, grow crops for a few years then move on to another area when the weeds begin to take over. The plot is left to lie fallow and they return to it years later when the weeds have been killed by the new tree shade.

The local people, who were already poor, were forbidden to carry out these activities in the new National Park, so their situation got worse. There was a lot of pressure on the remaining forest. The Park, the local forestry authorities and some charities, with some funding from the British Government, are helping them to find ways of earning money and improving their standard of living without destroying their own forest or that of the Park.



the Ekuri forest:

- is in the Support Zone
- is jointly controlled by the two villages within it, Old Ekuri and New Ekuri, each with a population of about 2,000
- is 95% covered in primary or good secondary forest, probably the largest communally controlled forest in Nigeria
- had, until recently, only one road and that was a rough track bulldozed through to Old Ekuri. Because of the rough terrain and large streams, the track could only be used for half a year during the dry season.

Chapter 4

Nigeria and its forests The Ekuri forest

Threats to the forest Solutions

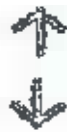
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Threats to the forest

The villagers asked the Park authorities for help. A National Park Community Forestry Officer (CFO) was paid by WWF to work with the villagers, finding out what they wanted and how the Park could help them with their plans for the future. Up till then, they had been selling the NTFPs, especially afang (a kind of vegetable), to buyers from the cities who came to the village. They then had to carry it on foot to Okokori where the nearest road was. Because they did not know what prices it would fetch in the towns, they sold it to the 'middle men' for unreasonably low prices.

The villagers realised that if they had a proper road, they could themselves take large quantities of NTFPs to the towns and make a lot more money. In 1992, a commercial timber company made a tempting proposition to build a new road in return for a timber concession (the right to fell trees) in their forest. However, the money offered was very small and the villagers thought that the company, having no long-term interest in the forest, might leave it in a very degraded condition.



Afang / Ukazi leavēs[®]

(*Gnetum African*)



These are
dark green
Shiny
leaves of
the
creeping "afang" plant cultivated
mostly in Calabar and Igbo land.
Afang is used as an ingredient in
cooking. It can be bought ready
shredded from African food stores.

Afang soup
recipe



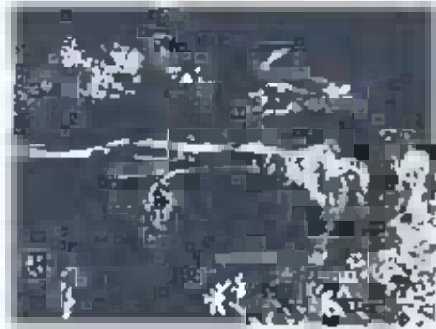
and the solutions...

After much discussion, the offer from the timber company was turned down and the villagers decided to work together in a co-operative to manage the forest themselves. With the CFO, they worked out a detailed plan to make the most of their resources. Some parts of the plan they could do on their own and some of it needed funds or training from outside.

The villagers decided they needed to:

- keep some parts of their forest as conservation areas
- carefully control any clearing of the forest for farming and replant some areas already cleared
- make sure that they never gathered more plant material than the forest could easily replace naturally
- get a road built
- market their produce themselves directly to the towns
- start making furniture and other goods for sale from the raw materials they gathered
- get proper training, especially for the young people
- fell some trees for timber strictly following Forestry Department guidelines (never felling more timber than the forest could easily replace naturally)
- seek FSC certification for the timber

Much of the plan is now in action. The villagers improved the way they collected and sold the non-timber forest products and made enough money to pay for the new road. They did much of the preparation work themselves. This, in turn, has made marketing easier and the direct sale of NTFPs in the towns now brings in a good income which has improved the lives of individuals and the community. Some timber is also being sold in the town of Calabar. In return for the help given by the Park officials, the villagers agreed to keep out of the Park, so the endangered animals are no longer threatened by hunting, farming or logging. In fact, the villagers are working with the Park to ensure it remains protected.



A photograph of a typical African forest - this one is in Uganda



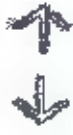
The people of Old and New Ekur are working together to improve their lives and also to ensure the long-term survival of their forest. A lot of the issues raised in this case study are important elsewhere in the world.

Chapter 5

More to think about The case studies



More to think about



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Protecting forests from destruction isn't just about saving wildlife. The needs of the people who live on the land need to be addressed, as do the needs of the countries which contain the forests. This chapter gives an idea of some of the threats facing the forests, and some of the ways in which forests have been protected. The case studies that follow this chapter give some examples of how some of these problems have been overcome, for the good of the forests and the communities they serve.

Click on the part of the map you're interested in to find out more

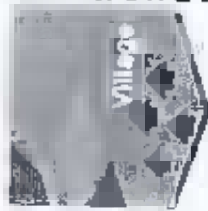


Buffer Zones:

There are often 'buffer zones' around a strictly protected area. Buffer zones protect the forests, but are less strict than national parks. These may be 'Managed Resource Protected Areas'. This means that people can live there and make a living from the forest but there are rules which protect the ecosystem and preserve the forest for future generations. Using buffer zones allows a much larger area of forest to be protected than would otherwise be available for national park areas.

Buffer Zone

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Villages:

Small-scale farmers all over the world practice 'shifting cultivation' (or 'swidden' farming or 'slash and burn'). In the Indonesian Outer Islands more than one million families out of a total of 12-13 million depend largely on this system. Charcoal found in forests world-wide shows that this practice is centuries old. When there are not too many people and the forest is large, farm fields can be widely spaced and each one left fallow for many years to recover.

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A "Shamba" (shifting cultivation farm) in the Kilombero valley southern Tanzania

Cities:



Now, the area of available forest is shrinking and the number of people wanting to use the land is increasing:

- farmers who have been moved off their own land
- people from the cities who cannot make a living there; often they do not understand the system and over-farm the land
- poor people from elsewhere in the country or even from other countries who want a better life
- families of people already living there - as the population increases, the land has to feed more people.

More people means fields have to be closer together - destroying more forest - and sites have to be re-used before they have properly regained their fertility.

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Roads

Roads built through the forest can bring disadvantages as well as benefits. Once new roads are opened it is easier for settlers to move in and cut down more forest for farming. Sometimes governments give people land rights if they clear the forest for growing food. And when there are settlers, new towns develop, using more land and requiring more farms to produce food. In the Brazilian state of Para, the deforested area of the Amazon rainforest increased from 0.6% to 17.3% after major road construction.

The easier movement of people also brings diseases to the forest



A Forest Road, near a Palm Oil plantation

people. Again in the Amazon, imported disease has wiped out 90% of (photo: www.orangutan.org.uk) the Sumatran orangutans.

The meat of wild animals has always been important in the diet of forest dwellers, just as farmed meat is for other people. When roads are opened, it is easier for forest people to earn much-needed money by selling bushmeat in the towns. In the same way that European town dwellers consider game (such as venison and grouse) a luxury food, so urban people in Africa are willing to pay high prices for bushmeat. Unfortunately, where logging trails open up the forest, hunting becomes much easier and brings in outsiders. In the Mambéle area of Cameroon, for example, locals, loggers and city hunters are between them killing so many antelope, monkeys, ant-eaters and even gorillas that they are in danger of wiping them out.

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Logging Camps:

Sometimes loggers move into an area against the wishes of the local people. Often this is illegal, but in other cases it is because the Government has sold the logging concession to earn the foreign exchange the export of the timber will bring. Sometimes, the concessions are sold by corrupt officials or ministers.

In Sarawak, Malaysia, the Penan people blockaded the roads when the forest where they lived was threatened. Many were arrested, and some died. One of their leaders said:

"The Forest is Our livelihood. We have lived here before any of you outsiders came. We fished in clean rivers and hunted in the jungle. We made our sago flour and ate fruit of the trees. The logging companies turn rivers into muddy streams and the jungle into devastated forests. dirty rivers and wild animals will not live in devastated forests."

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National Parks:

Forests, like other landscapes, can have different levels of protection. 'Wilderness Areas', for example, are very strictly controlled, with almost no human activity allowed. Rules for 'National Parks' are slightly less strict: some forms of 'recreation' are allowed. Local people often object to the rules. Francois Bikoro, of the Cameroon magazine, Africa Express, says:

"You destroyed your environment and got developed, now you want to stop us doing it! What do we get out of it? You have your TVs and your cars, but no trees. People want to know what they gain by conserving the forest."

Sometimes people are turned out of their homes when a National Park is created. In the 1980s in Rajasthan, India, villagers were evicted to make way for tourist facilities. They were so angry, they beat up the game warden. Some governments give people good places to live elsewhere, but too often they end up on poor land or in makeshift villages ('shanty towns') on the edge of towns where they find it hard to make a living.



Illegal logging inside Tanjung Puting National Park (photo: www.orangutan.org.uk)

"Our life was not easy but we lived it in content. Now the jungle is into devastation. The fish cannot survive in"

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The farmers get more money than they would get by allowing commercial companies in, local people get jobs - and the forest gets the FSC award.



The Osa Wildlife Refuge, Costa Rica



Costa Rica is very rich in plants and wildlife: it has over 8,000 different native plants. (The UK, which is five times bigger, has 1,443.) Costa Rica has already lost a great deal of its forest and about 3% of what is left disappears every year. This is the highest rate in Central America apart from El Salvador.

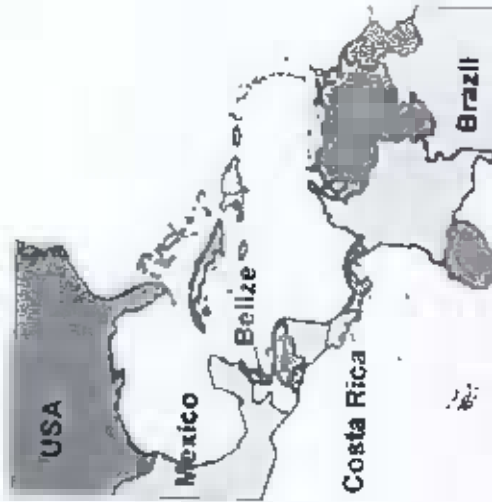
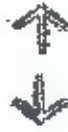
The Corcovado National Park is on the Osa Peninsula. Around it is the buffer zone, where an NGO called TUVIA is working with the local landowners. These farmers need money but they don't want to cut the forest to create extra farming land, nor do they want to sell the logging rights to a timber company because they depend on it for many non-timber forest products. Working as co-operatives, they take out trees which have fallen naturally. These are stripped of branches on site and cut into manageable blocks of wood. This means there is minimum damage to other trees when the wood is hauled out. Another advantage is that 60-70% of the tree (the unusable branches) is left to rot, providing nutrients for new plants and homes for small wildlife.

Water buffalo are used to haul the wood out and a breeding centre has been set up, supported by WLT. Training and information for other local people are also offered here. The project is not all low-tech; the co-operatives use specialised monitoring and information systems to locate suitable trees and the farmers have solar panels and radio phones.

You can find out more about the park at this tourism website and you can also visit TUVIA online



Right: Using water buffalo is safe, cheap and causes little damage as the buffalo can use narrow forest tracks - and they provide milk!



Map showing the location of Costa Rica (click for more detail)



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Adivasi forest produce programme, India



Deep in the dry tropical forest of the Nidgiri Mountains in the State of Tamil Nadu, adivasi (tribal) communities have lived for generations, gathering and selling non-timber products such as tamarind, gooseberries, honey, soap nuts and moss.

These people have always been very poor, but in recent years their situation has got worse. Since independence in 1947 the government has been protecting large areas of forest and, to raise money from them, they started auctioning licences to harvest the non-timber products. These licences nearly always went to commercial companies who then employed adivasi at pittance wages. They encouraged the gatherers to take as much of a particular product as possible, with no concern for future harvests.

For many years an organisation called MYWA had been working with adivasi to help them improve their lives and gain their rights. In 1997 they won the licence, with help from a UK charity called Find Your Feet (FYF), using money from the National Lottery and the British Government. FYF also helped the adivasi to acquire a drying room and scales to improve their production and packing techniques and a vehicle for collecting produce from the villages.

The 5,249 families share the work and the profits. The drying, processing and packing is done by the elderly who can no longer go into the forest to gather produce. Local men and women are being trained in management skills. The adivasi are now collecting from the forest in their traditional way, taking only what they need and preserving the source for future years. At the same time, the use of the new technology allows them to earn reasonable money to supplement their subsistence way of life.

FYF (Find Your Feet) have a website which includes video of the Tamil Nadu project



Tamarind - a cooking spice with a distinctively sweet smell like apples

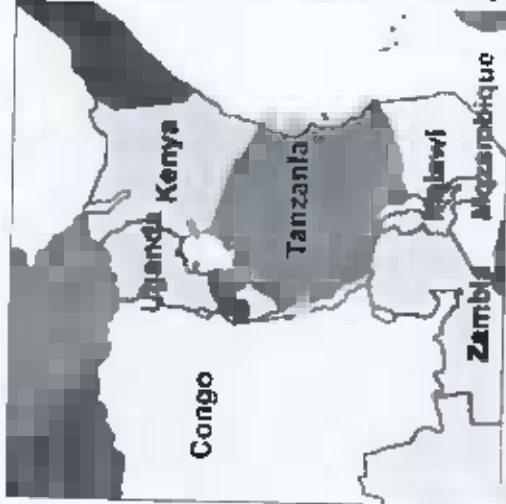
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Miombo woodland, Malawi



The Government of Malawi wants to conserve its natural forest and it also wants to raise the standard of living for some of its poorest rural people. One project, aided with money from the UK government, aims to do both.

Miombo is a type of deciduous woodland which covers a vast area of southern Africa. In the Zomba area of Malawi, the miombo woodlands are very degraded. In order to grow enough food, local people had cleared areas for crops and huge amounts of wood for had been used as fuel by tobacco companies. (They now grow their own on plantations.) The Government project is trying to rediscover lost knowledge about the ecology of these woodlands and to investigate products which could be harvested commercially.

Experts have been working with local communities

to find out their needs and help with ways of meeting them while still preserving the woodlands. They discovered that alongside the farming, many products were gathered from the forest, mostly by women trying to support their families. However, these products, such as thatch grass, ropes, mushrooms and fruit, earned the women very little.

Experiments are going on into schemes which would bring a higher income; these include bee-keeping and tapping Karaya gum, which is used in pharmaceuticals and cosmetics. The women are also being taught about the true market value of their products and the need for high quality.

The project staff are training the communities in the skills needed to help the woodland regenerate and local people are now working at thinning, firebreak maintenance, forest patrols and so on. Some people are also being trained as managers. In addition, workshops are being held for other communities so that what has been learned can be passed on.



African Miombo Woodland

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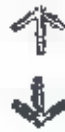
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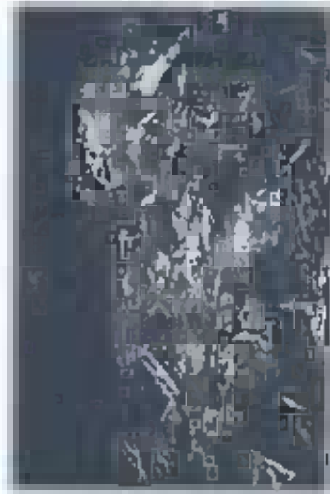


Kolombangara Forest Products Ltd (KFPL)



Until recently, much of the land of the Solomon Islands was covered with dense natural rainforest. The people here have lived for centuries on what they could get from the forest and the sea. Now, the Government is allowing logging companies, mostly from S E Asia, to carelessly cut huge areas. Very quickly weeds and creepers smother any new sprouting trees, preventing the forest from regenerating. The poor logging also causes rivers to fill with eroded soil and devastates the coral reef lagoons. Inefficiency and corruption in the Government means that the economy hardly benefits except from the low wages paid to labourers.

The Government, together with the UK Government, set up a company, KFPL, which is trying to show a better way with the 36,000 ha it manages on Kolombangara. 20,000 ha will be preserved as primary forest or helped to grow again where it has already been logged. On the remaining area KFPL is gradually planting commercial timber trees. This plantation is managed according to a strict environmental code.



To make sure the wood will sell for a good price on the international market, a very advanced scientific programme is used to make sure that only trees of the highest quality are grown. Any profits are used to plant more trees. The company has been

awarded the FSC certificate. Although many islanders lead an almost cashless existence, they can earn money when they do need it by working on the plantations and at the small sawmill where the timber is cut to the high standard needed for western markets. There are also plans to process the wood in other ways once enough timber is available from the plantations to make it worth installing the new machines.



KFPL have a website with more information about their work

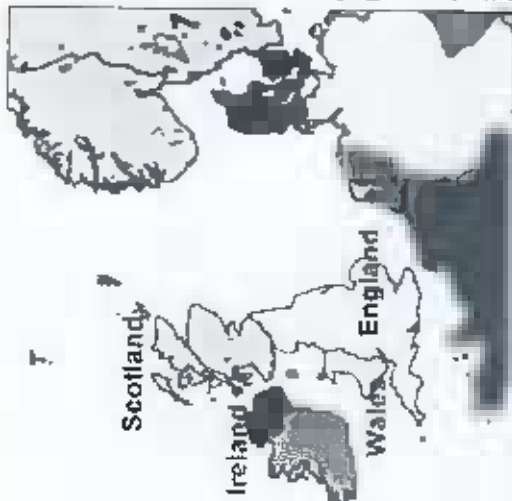
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Coed Cymru, Wales



The natural forest of Britain is mostly temperate hardwood. However, very little ancient forest survives. About 45% of the woodland that did exist in 1945 has since gone. Although forest cover has been increasing, until recently much of it was non-native conifer plantations. Because of Britain's great need for wood, the Government encouraged this through generous tax allowances.

However, policy has changed and now grants are available to help owners of broadleaf woodlands. Coed Cymru is an organisation which provides training and advice to landowners on managing their woodlands and producing timber for sale. It is funded through various local and national government agencies, the EU and WWF.

The aim is to encourage 'continuous forest management which benefits the environment and the rural economy'. Since the scheme started in 1986, management plans have been drawn up for a total of 15,000 ha. Most of the woodlands were on farms and considered as unproductive land. Others were degraded through over-grazing by livestock. Coed Cymru is helping the landowners use 'close to nature' forestry which preserves mixed age and mixed species woodlands.

As well as advising on improved silviculture and felling methods, they also help with obtaining grants and marketing. The timber is of high quality but of smaller dimensions than usually wanted by timber buyers (and smaller than much wood obtained from tropical forests). This means that a specialist market is needed where this wood will fetch a good price. Otherwise, the woodland owners will not make enough profit to make it worth while. Coed Cymru is now playing a central role in developing new products which can make best use of the wood. At present, all this work is very dependent on grants, but the timber producers themselves are beginning to show a profit



Photo: Welsh Forests (Coed Cymru web site)



Coed Cymru have a [website](#) with more information about their products



Further threats



Although some countries and communities are working hard to find ways of preserving and improving their forests and make a living from them, there are further threats to forests world-wide.



Can you think what these threats may be? Are there any solutions to this problem? If these problems cost money to solve, who should pay? You can investigate some possible solutions in Who Pays?



Fire

In 1997/8, fire devastated huge areas of Brazil, Indonesia, Venezuela, Guyana, Colombia, Mexico, Kenya, China, Vietnam, Thailand, Malaysia and Brunei. Some were accidental: poor logging management left open spaces with twigs, leaves and small branches drying out in the hot sun, or fires set to clear land got out of control. Others were probably deliberate: by plantation owners wanting to drive out small farmers or local people acting in revenge for being kept out of their traditional forests. The extreme weather conditions of those years made the problem worse, but fire has been an increasing hazard for many years.



Cattle ranching

Large areas of tropical American rainforest have been cleared for cattle ranching: the beef produced in Brazil is mostly for the domestic market, but much from Central America goes to the USA. In the past, ranchers have been given Government grants to convert forest to pasture. When the grass is planted, everything is fine for a few years. However, the soil starts to dry out, the grass gets thinner, non-edible weeds spread, and, without the rotting of leaves and twigs on the ground, the nutrients in the soil are not replenished. Although some ranches are being replanted with new grasses, many are abandoned and the ranchers move on and cut down more forest. It is hard for the forest to regrow because the abandoned areas are so large, seeds from the surrounding forest are not carried there.



Minerals

Oil, natural gas and certain minerals are plentiful in some forest areas. They might be used within a country or exported to gain foreign currency. However, it is very difficult to extract them without environmental damage. In the Siberian taiga forests, huge areas have been ruined by leaking oil pipelines, bauxite mining in Guyana has left scars in the forest landscape and gold mining in the Amazon has caused river pollution. Such projects often create disagreement in the



Dams

Hydroelectric dams on rainforest rivers produce

power for both industry and domestic consumers. Although hydroelectricity can replace the burning of trees as fuel, the dams themselves cause lakes which flood vast areas of forest. The proposed

local communities: some (often the men) are in favour because of the jobs created; others (often the women) are more concerned about the forest destruction.

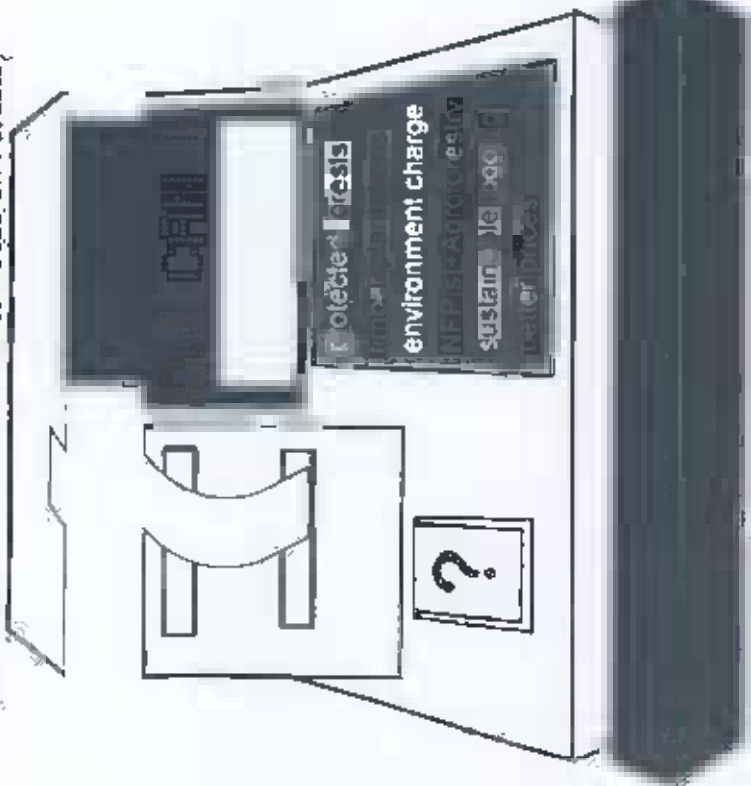
Bakun Dam in Sarawak, Malaysia, will involve flooding an area the size of Singapore.



Fuel

As well as the damage caused to woodlands by the hundreds of millions of ordinary people who use wood as their day-to-day fuel, rainforest trees are sometimes used for industry. In Brazil, huge areas of forest are being felled and not replanted to provide fuel to smelt iron ore, which is then sold to the European car industry.

Close this window to return to Focus on Forests



Who pays?

In general, those countries which are deforesting the most tend to be those with the worst economic problems: they cannot afford the necessary long-term measures. If the global community expects them to save their forests, then who should pay, how much and what form should the 'payment' take?

Click on each of the different issues on the cash register to find out the pros and cons of each - the question mark returns you to this page.

There are also some more problems affecting these solutions! Find out more about population and lack of control



Chapter 7

Further threats

Who Pays? (pop-up)

What you can do

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What can you do?



It may seem that the best way of not contributing to tropical – or any other – deforestation is not to buy wood. But, as you have seen, if people stop buying wood, there will be one less way for forest dwellers to make a living from their forests and one more reason for them and their governments to allow the forests to be cut down to make way for farming, ranching, plantations, mining.

So you could...

- Persuade people in your household who buy furniture or DIY materials to go for those with the FSC label.
- Do an audit of your school and find out where wooden items come from. Schools use an awful lot of wood! Find out who is responsible for such purchases and ask for a meeting with them to discuss the issues. You could prepare a brief paper outlining the facts and your arguments to present to them first.
- Find out more about the issues to back up your arguments.
- Join or support one of the organisations who are working for sustainable forestry. The more people who are campaigning, the more likely it is the voices will be listened to.



Chapters

Introduction

- 1: Shrinking forests
- 2: Belize
- 3: Good & bad news
- 4: Ekur forest, Nigeria
- 5: More to think about
- 6: Six case studies
- 7: The future



About Focus on Forests

The Focus on Forests website has been produced by the World Land Trust, with funding from the Department For International Development. The original text was written by Jill Hobday. This site is copyright 2003 The World Land Trust.

This website is an output from a project funded by the United Kingdom Department for International Development (DFID) for the benefit of developing countries. The views expressed are not necessarily those of DFID. ZF0109 Forestry Research Programme. DFID forestry research programme www.frp.uk.com

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Teachers pages

login

username:

password:

Submit



Information for Teachers

You need a password to access these pages.

The Password is freely available by emailing the World Land Trust.

The student pages on the site can be found [here](#).



Burrowing owls from the WLT project in Patagonia.

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Teachers pages

Resources for download

Information for Teachers

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Welcome to the Information for Teachers page. You can download a complete Teacher's Guide, as a .pdf file. Most browsers will display this file automatically. We also have a selection of maps and diagrams which can be photocopied for use in lessons. All of these maps will be bundled together with the complete website, video and book version on the CD ROM.



contacting us

You can contact the World Land Trust with your comments or suggestions about the Rainforest site.

Files for Teachers to download



Teachers Guide (204k .pdf)



Outline Maps (available soon)

This is a text only version of the Teacher's Handbook - a more comprehensive version of the Handbook will be available soon

The Maps pdf contains outline map versions of the maps featured in Focus on Forests



Program for Belize Maps (available soon)

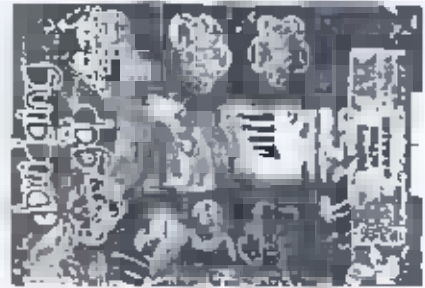


Focus on Forests Book (available soon)

These maps include logging compartment data from the Programme for Belize

Following the production of Focus on Forests as a website, the go ahead has been given for the World Land Trust to produce a booklet version.

Resources available from the World Land Trust



Bridging the gap wallchart

This wallchart provides information about the WLT projects in Ecuador, emphasizing the role of bridges between forest reserves. It is available on request from the World Land Trust website; although any donation is appreciated.

www.worldlandtrust.org/education

Help pages
help page home
how to use this site
help with words
links
references
picture gallery

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Help pages

Using the help pages you can:

- find out how to use Focus on Forests
- look up explanations of complicated words
- view links to other useful sites
- look up references used in Focus on Forests
- view all the pictures in the site in our photo gallery





WORLD LAND TRUST PROPOSAL

Proposal to Create a Multi-Media Resource on Tropical Forestry Issues

BACKGROUND

The World Land Trust (WLT) was funded by the DFID Development Awareness Fund in 1999 to produce an educational booklet aimed for school children at Key Stage 3 Level. Divided into two parts; teaching notes and a pupil's book, the booklet addresses the importance of forests worldwide, how they are being affected by human influence, giving a number of case studies on sustainable forestry. The information for this booklet has been researched and collated, however, no progress has been made to publish the booklet, due to a lack of adequate funding. Funding is currently sought for publishing the booklet, so that copies may be provided free of charge to schools all over the United Kingdom. A quote for the production of the booklets is given in the budget breakdown at the end.

In the past few years, information technology and the use of the Internet to access information has become more and more common. In particular, it is becoming an important tool for the younger generation, growing up in a world of computers, who may find it easier to access information "on-line" than in a library. The WLT therefore proposes that in addition to producing "hard copies" of the information collated for the original DFID funded Key Stage 3 booklet, it should also be formatted and displayed in the form of a website. This information could then be accessed by all schools and homes, in the UK and worldwide at no extra or continual printing costs; and we believe this is particularly attractive in that it will allow access to many places where the printed book would never be made available. Teachers and pupils would be given permission to download and print the material for educational use free of charge. An additional benefit is that as research into the issue is furthered, it will be possible to update information.

PROPOSAL & RATIONALE

There is currently a large market for the creation of websites. However using a multi-media company can often be costly. Work carried out recently on the WLT website has been charged at commercial rates (around £50 an hour) using a local multi-media company. However, the WLT proposes that the creation of a website within the WLT head-quarters in Suffolk could be done relatively cost-effectively by employing a trainee "web-master". The WLT, having recently completed a new website¹ and have the know-how and experience of web-site design, but lack the technical expertise. Appointing a trainee "web-master" will not only be less costly, but will also have a number of other benefits:

1. The trainee will have a good background in ecology and conservation, and will therefore be better able to produce a more logical and 'useful' site than a professional web-designer with little knowledge of the subject.

¹ The creation of the World Land Trust website was sponsored by a local multi-media company, although any follow up and additions are paid at commercial rates

APPENDIX 1: Original Project Proposal

2. Producing the web-site outside the office will also require a large amount of consultation with WLT staff. This could amount to a great cost, in terms of time lost by other members of staff.
3. The trainee will also be able to access graphics from "charitable sources", such as other NGO's, whereas a commercial venture would be subject to high copyright charges.
4. Although the labour costs producing a web-site commercially may only be slightly more expensive, the completion time may be more than anticipated. Through setting up the WLT website, despite having pre-prepared information & design ideas, the length of time taken to complete the site was far greater than anticipated. The benefit of designing the site in-house is therefore that the costs are fixed, and there is little risk of unexpected extended costs, which would prevent the site from being completed.
5. Creating the web-site in-house will also have great capacity building benefits to the WLT, such as improved equipment, software and technical expertise. This could therefore result in the increased office efficiency, which would be a good means of improving the work of the WLT, including any future projects funded by DFID.
6. The trainee will be hired for a 6-month period, and so the project duration will allow the production of a professional, well-designed web-site.

BUDGETS

• WEBSITE DEVELOPMENT

Trainee salary*	£4,550
<i>* Paid at £175 per week (£5 an hour / 35 hours per week) x 6 months</i>	
Equipment & Software	£1,500 approx.
Training & Consultancy	£1,000 approx.
Cost of certificates / securing server space.	£200 approx.
Publicity: Leaflets/magazine & journal adverts	£5000 approx.
Web Campaign (banners/web adverts)	£1000 approx.
Office support (i.e. office costs, supplies etc.)	Provided by WLT
Total Cost of Website Development:	£13,250 approx:
<u>TOTAL FUNDS REQUESTED:</u>	<u>£14,000</u>

www.focusonforests.org

Welcome to the 'Focus on Forests' Questionnaire. There are three parts to this questionnaire, which the website will help you complete. Please note that the site is under construction, and we are taking the opportunity to get your views on how we can make it better. At the end of the questionnaire, there is a "Bug Alert!" box where you can write down areas of the site that are not working properly.

Part I: Use the website to find the answers to the following questions.

1. What percentage of forest cover is there left in Britain?%
2. How much of the world is currently covered by forests?
3. Name 4 'non-timber' (i.e. not furniture!) items in your house, that come from the forest
 1.
 2.
 3.
 4.
4. What is an epiphyte?
5. List 3 reasons why the Rio Bravo Forest is special
 1.
 2.
 3.
6. What is the main use for Chicle?
7. In which country is the FSC based?
8. How many million international tourists were there in Belize during 1996?
..... million

Part III: Answer the following questions about the Focus on Forests site.

1. How easy was it to find your way around the site?
Very good Good OK Not very good Very bad
2. What did you think of the colour scheme?
Very good Good OK Not very good Very bad
3. Did the pages look interesting?
Very good Good OK Not very good Very bad
4. Was it easy to read?
Very good Good OK Not very good Very bad
5. Were the pictures big enough?
Very good Good OK Not very good Very bad
6. How does Focus on Forests compare to other sites?
Very good Good OK Not very good Very bad
7. What other educational sites have you used before (list up to 5).
.....
.....
.....
8. Which one was your favourite?
9. What do you most like about that site?
10. What aspect do you most like about the Focus on Forest site?
.....
.....
11. What aspect do you least like about the Focus on Forest site?
.....
.....

Bug Alert!

Please use this space to write down any problems you come across when using the Focus on Forest site. Thank You!

APPENDIX 3 · Activity Time Line

Project Time Line

Month	Dates	Week	DFID content	DFID design	DFID web	DFID CD rom	DFID test	WLT redesign	WLT maintenance
July	1st - 5th	0							
	8th - 12th	1							
	15th - 19th	2							
August	22nd - 26th	3	DFID content and graphics, finalise text, teachers book	DFID design import graphics, import HTML, write HTML, write RASHI					
	29th - 2nd	4							
	5th - 9th	5							
	12th - 16th	6							
	19th - 23rd	7							
September	26th - 30th	8		import content, pdf creation					
	2nd - 6th	9							
	9th - 13th	10							
	16th - 20th	11							
October	23rd - 27th	12							
	30th - 4th	13							
	7th - 11th	14							
	14th - 18th	15							
November	21st - 25th	16							
	28th - 1st	17							
	4th - 8th	18							
	11th - 15th	19							
	18th - 22nd	20							
December	25th - 29th	21							
	2nd - 6th	22							
	9th - 13th	23							
	16th - 20th	24							
January	23rd - 27th	25							
	30th - 3rd	26							
	6th - 10th	27							
	13th - 17th	28							

APPENDIX 4: Breakdown of Expenditure

DFID Budget Line	Expenditure Item	Cost
Staff Costs/Fees	P. Taylor Salary (July 2002)	473.55
Staff Costs/Fees	P. Taylor Salary (August 2002)	621.83
Staff Costs/Fees	P. Taylor Salary (September 2002)	621.83
Staff Costs/Fees	P. Taylor Salary (October 2002)	621.83
Staff Costs/Fees	P. Taylor Salary (November 2002)	621.83
Staff Costs/Fees	P. Taylor Salary (December 2002)	621.83
Staff Costs/Fees	P. Taylor Salary (January 2002)	615.97
Staff Costs/Fees	Empl. Nat. Insurance (July 2002)	10.62
Staff Costs/Fees	Empl. Nat. Insurance (August 2002)	28.08
Staff Costs/Fees	Empl. Nat. Insurance (Sept 2002)	28.08
Staff Costs/Fees	Empl. Nat. Insurance (October 2002)	28.08
Staff Costs/Fees	Empl. Nat. Insurance (Nov 2002)	28.08
Staff Costs/Fees	Empl. Nat. Insurance (Dec 2002)	28.08
Staff Costs/Fees	Empl. Nat. Insurance (January 2002)	28.08
Staff Costs/Fees	New Scientist Recruitment Advertising (Reed Business Information)	432.00
Staff Costs/Fees	Kevin Allenby - Software Training (9 hr)	225.00
Staff Costs/Fees	Garreck Training & Consultancy - Website Design & Useability	700.00
Staff Costs/Fees	Jill Brand Consultancy - Content Review	450.00
Staff Costs / Fees	TOTAL:	6,184.77
Overheads	TOTAL:	0.00
Travel & Subsistence (UK)	Website Designer Interview	147.40
Travel & Subsistence (UK)	DFID Meeting (August 2002)	62.26
Travel & Subsistence (UK)	DFID Meeting (October 2002)	32.75
Travel & Subsistence (UK)	Halesworth School Workshop	22.50
Travel & Subsistence (UK)	TOTAL:	264.91
Travel & Subsistence (Overseas)	TOTAL:	0.00
Capital Equipment	Computer Equipment (COMET)	737.47
Capital Equipment	Computer Equipment (dabs.com)	111.62
Capital Equipment	Computer Software (Dreamweaver MX, Flash MX, Fireworks MX)	319.62
Capital Equipment	Computer Software (Mapping)	229.12
Capital Equipment	Computer Software (Quiz Programme)	19.79
Capital Equipment	TOTAL:	1,417.62
Miscellaneous	Fee (Verisign Inc.) for two year renewal of website domain name	38.20
Miscellaneous	Room Hire at Linnean Society	44.50
Miscellaneous	Room Hire at Linnean Society	50.00
Miscellaneous	Garreck (Advertising)	6,000.00
Miscellaneous	TOTAL:	6,132.70
TOTAL EXPENDITURE:	TOTAL:	14,000.00

* All figures are given in £ Sterling.



WORLD LAND TRUST PROJECT CONCEPT

Proposal to create a Multi-Media Resource on Endangered Species and Animal Conservation.

BACKGROUND

The World Land Trust (WLT) is a UK-based charity (Reg. No. 1001291), working to help purchase and protect biologically important and endangered habitats worldwide. In addition to 'on-the-ground' conservation, WLT believes that education plays a vital role in efforts today, by helping inform and enthuse the 'conservationists of the future'. Since its inception in 1989, WLT has been heavily involved with young people, and through its education programme has interacted with over 10,000 schools throughout the UK. As a result of many thousands of requests for information related to conservation, WLT has been able to gauge the need and demand for the sort of resources needed by students, both in primary and higher education.

Over the past decade, the WLT has produced a wide range of educational materials, including over 5 years of regular contributions to Nationwide's "Smart Moves" magazine, aimed at younger customers. In addition to this, WLT has received three grants since 1999, from the UK Government Department for International Development (DFID) specifically to produce educational materials for Key Stage 3 school children (ages 11-13), focussing on Forestry Conservation Issues. These grants allowed WLT to research and produce both a website (www.focusonforests.org), as well as a booklet (currently under production), which is proposed to be available free of charge to students, teachers and parents.

PROPOSAL

Through the many requests received by the WLT over the previous decade, we have identified a defined need to develop a comprehensive resource on the world's endangered animal species, outlining the causes and potential solutions to the problem, as well as the ways that these problems relate to human communities.

The overall objective of the project is to research and develop an interactive website to be available worldwide, and in several major languages. The website will be aimed to be accessible and of use to a wide range of persons, as a comprehensive resource to younger students, as well as an introduction to animal conservation for older persons with an interest in the subject. Proposed contents of the website include:

- Comprehensive animal fact-files including conservation status, case studies and current issues. Fact-files will include all major animal groups, using examples from every habitat type throughout the world.
- The importance of biodiversity and the thoughts behind the current extinction trend.
- The methods and myths of conservation efforts, including conservation hotspots and flagship species.
- How to find further information on biodiversity conservation, and an introduction to using Red Data Books and other information resources, including web sources which will be included as hyperlinks.
- How students can become involved in conservation locally, and the importance of this.

APPENDIX 5: Proposal for Endangered Species Website

PROJECT METHODS

The project will be carried out in three phases. The first two phases will involve intensive information research and the development and completion of the website. It is anticipated that the time duration of Phase 1 & 2 will be approximately 12 months. Phase 3 will involve a second 12-month period of monitoring site usage and processing feedback.

Phase 1: The first phase of the project will involve the research and collation of information, using an advisory panel, inclusive of teachers of various levels, education consultants, science and education authors, conservation experts, as well as website designers. The main content of the site, as well as ideas for website structure, will be agreed by the panel to ensure information is fully accessible to a wide audience. The outcome of Phase 1 will be the production of a text version of the site, along with a structure outline for the website, inclusive of interactive features i.e. worksheets, quizzes and online dictionary.

Phase 2: The second phase of the project will involve the design and development of the website, following the structure guideline discussed by the advisory panel. Other resources i.e. graphics, will be sourced at this stage, and advertising (both traditional methods and Internet) will commence. Translation of the site into various major languages will also occur, and be 'uploaded' during this phase. The outcome of Phase 2 will be the completion of the interactive website, which can be made 'live' to the Internet audience.

Phase 3: The third phase will involve the continuation of advertising for the website. Monitoring of site usage and feedback generation will be the main objective of this phase, with the overall outcome of Phase 3 being to improve and adjust the website in response to feedback received.

PROJECT JUSTIFICATION

- **Current need for a comprehensive resource**
Through working in close contact with schools, and through receiving many requests for information on animal conservation, the World Land Trust are fully aware of the type of information needed, as well as the current demand. Recent searches on the Internet show that although there is a tremendous amount of information available, there does not appear to be a comprehensive site that deals with information on every animal group, only providing information on single animal groups i.e. big cats.
- **Production of an accessible resource**
Using the term 'accessible' to have two different meanings: a) whether information is available to people in terms of place; b) whether information IS suitable for the audience.
 - a) Through the constant expansion of computer use globally, this resource will be available to homes and institutions throughout the world. The information will be available in several major languages, and will be available in countries where there is often a problem receiving literature in book form. With reference to the latter point, there will be no charge associated with the usage of the site, whereas books can be extremely costly in some countries, if available.
 - b) Through using a varied panel of experts, information will be collated and presented in such a way to be of use to a varied audience. In addition, although the website will contain a significantly large amount of information, unlike printed material, website design allows information to be easily found.

APPENDIX 5: Proposal for Endangered Species Website

- **Cost Efficiency of Website Production**
In comparison to printed materials, the production of a website has many advantages in terms of cost efficiency. Production and distribution of printed materials can represent a substantial proportion of costs, on top of research and design costs, both of which do not present of problem for information displayed over the Internet. In addition, website information can be easily and regularly updated at relatively little cost, so that the information will not become invalid and require costly production costs of separate editions.
- **Production Efficiency**
Following the success of developing a similar resource for OFIO in the form of an educational website focussing on Forestry Conservation Issues (www.focusonforests.org), the World Land Trust has the experience, expertise and necessary contacts to complete a project such as this with relative ease. For example, John Burton (Chief Executive of WLT) is a leading expert and author on animal conservation, with particular reference to endangered species, owns the largest collection of Red Data Books (ROB) worldwide, and is a registered consultant to the World Bank for ROB. He has also had an extensive career working on the conservation of endangered animals with several major organisations, and therefore has access to the necessary contacts and information.
- **Benefits to Sponsor**
The development of a website resource represents a global project, which will be of use to many young adults around the world. It therefore provides an ideal opportunity for a sponsor to take advantage of modern technology, and become part of what is likely to become a popular and widely used resource worldwide. The sponsor's logo can appear wherever appropriate throughout the website, and in addition, direct links can be made to and from the sponsor's website. In short, this website represents a great opportunity to assist with a high profile project, and become involved with an international organisation with institutional support from the EU, the UK Foreign & Commonwealth Office, and the UK government Department for International Development

APPENDIX 5: Proposal for Endangered Species Website

DRAFT BUDGET

<p>4 x Workshops @ £1500 per workshop <i>Inclusive of specialist fees (approx. 6 specialists @ £150 each); travel & subsistence expenses (approx. £400); room hire in central London (£200).</i></p>	<p>£6,000</p>
<p>Research, collation and writing of text <i>To be carried out using 2 WLT interns, expenses totalling £5,000 each.</i></p>	<p>£10,000.</p>
<p>Translators fees @ approx. £750 per language <i>Website to be translated into Spanish, Portuguese, Chinese, French, Arabic, Korean, Russian. Translation fees are to be donated to relevant NGO's, where translation will take place.</i></p>	<p>£5,250</p>
<p>Web Designer Salary Costs (part) @ £15,000 pa. x 1 year <i>Phase 1 requires 50% work/attendance for 6 months i.e. ½ year, Phase 2 requires 100% work/attendance for 6 months i.e. ½ year, Phase 3 requires 25% work/attendance for 12 months i.e. ¼ year. Costs are inclusive of National Insurance payments etc.</i></p>	<p>£15,000</p>
<p>Equipment and Software Updates</p>	<p>£2,000</p>
<p>Sourcing / usage of graphics i.e. copyright fees, etc.</p>	<p>£5,000</p>
<p>Training and Consultancy</p>	<p>£1,500</p>
<p>Misc. technical costs i.e. certificates, server space etc.* <i>*This is one aspect that has not been fully researched.</i></p>	<p>£2,500</p>
<p>Advertising & Publicity (Traditional & Web)</p>	<p>£7,500</p>
	<p>Subtotal: £53,250</p>
<p>Contingency (10% of subtotal)</p>	<p>£5,325</p>
<p>WLT management costs (15% of subtotal)</p>	<p>£7,985</p>
	<p>Total: £68,060.</p>