



SABEDORES(A)
DEL MANEJO
DEL BOSQUE



UNIVERSITY OF
STRATHCLYDE

Preservation and Rehabilitation of the Colombian Rainforest by Indigenous People

Colombia-Scotland

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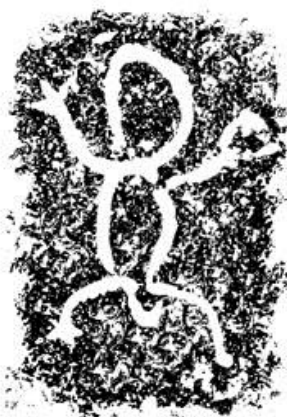
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The Participants:

Blanca de Corredor, Anthropologist, Universidad Nacional de Colombia
Ann Mitchell, Pharmacist/Microbiologist, Universidad de Los Andes/University of Strathclyde
Alexander Gray, Pharmacist/Phytochemist, University of Strathclyde, Scotland
Alvaro Andrés Corredor, Fine Arts, Universidad Nacional de Colombia
Roberto Pineda Camacho, Anthropologist, Universidad de Los Andes
Eudocio Becerra Vigidimas, Linguist, Sabedor-Uitoto, Universidad Nacional de Colombia
Indigenous abuelos(as) Sabedores(as), Amazonas / Caquetá, Colombia
Juan Andoque Andoque, Aduche/Amazonas, Colombia
Agusto Falcón Pérez, Resguardo Macedonia, Río Amazonas
Indigenous abuelos(as) Sabedores(as), Amazonas, Brasil
Manoel Fernandes Moura, President Federação Indígena pela Unificação e Paz Mundial, Brasil
Indigenous abuelos(as) Sabedores(as), Amazonas, Peru
Juan Cobos Rios, Chaman, Nueva Zelanda, Peru.
Jan Dick, Centre for Ecology and Hydrology, Scotland
Philip Mason, Centre for Ecology and Hydrology (now MYCO-CONSERVE), Scotland
Germán Benitez, Medicine/Homeopathy, U. Javeriana, Colombia
Xavier Hurtado, Fine Art/Media and IT U. Nacional, Colombia & Universitat Pompeu Fabra, Barcelona, Spain
Nixon Cueva Márquez, Agroforester, IES/CINOC, Caldas, Colombia
Carlos Gutierrez Trujillo, Medico, Cali, Colombia
Oscar Tamayo, Secretaria de Salud, Leticia, Colombia
Members of, Instituto Colombiano Agropecuario (ICA), Colombia
Clara Patricia Peñas Venegas, Mycologist, SINCHI, Leticia, Colombia
Lus Marina Mantilla, Director, SINCHI, Leticia
Santiago Fajardo, Director UMATA, Leticia, Colombia
Mario Aguilar, Scotland-Colombia Link - University of St. Andrews, Scotland
Marta Alzate Nejeteye, coordination/secretarial workshops, Leticia
Norma Elena Leal Nejeteye and Elvis Cueva M. and Domingo guides/river transport

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Métodos de Preservación de la Selva Tropical Amazónica



SABEDORES(AS)
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Glossary of Terms

Abuelos-Sabedores(as) - indigenous wise men or wise ladies who, from conception/birth, have gained expert knowledge of plants, traditions such as medicines, managing the environment by following careers (e.g. dance, medicine, basket making). These careers are profound and can last as long as forty-five years. Cf. Chaman - Shaman

Achapo – wood used for construction

ACITAM – Asociación de Cabildos Indígenas del Trapecio Amazónico

Alcaldía de Leticia – Mayor’s department – local authority

Banco de la República (Leticia)- Colombian central Bank, Leticia, Amazonas, Colombia. It has a cultural section in many Colombian departments including Bogotá (the Gold Museum) and Leticia (with Library and Área Cultural), Directora Dra. Gloria Revello. The director of the Banco de la República, Leticia is Dr. Jairo Córdoba Pinto.

Armada Navál – Navy

Bienestar Familiar – Family welfare – government organization

Cacique – chief of community – protectors as well as spiritual and political guides of the community

Caimo – *Pouroma cecropiaefolia* (Fam. Moraceae) – edible fruit species grown in *chagras*

Cananguchales – groups of *canangucho* palm trees

Canangucho – *Mauritia flexuosa* palm.

Carretera communities – communities located on road (carretera about Km 24 long) North from Leticia to Tarapacá, including towns at Km 3, Km6 (Nuevo Milenio), 7, 11 (La Tacana), 14, 24.

Chagra de Vega – plantations or “*chagras*” on the banks of white water rivers – areas which are flooded during the rainy winter season and planted in summer when the water level falls leaving a rich sediment on the river bank. The crops/species planted depend on whether the *chagras* are high, medium or low in relation to the river water level.

Chagras - Traditional Indigenous mixed-species gardens cultivated by the indigenous people. They are normally of one or two hectares in size, to produce edible, ritual and medicinal plants for the family.

Chagras de Los Espíritus – Plantations with spiritual owners - In the indigenous belief the land, rivers, air, plants, animals all have spiritual owners (*dueños*). They believe we must respect this and not use or take more than we require from the forest environment for subsistence. They cannot indiscriminately fell trees just as they do not believe they should plant crops in just any location. For us to successfully carry out our inter-cultural workshops a ‘bridge’ has to be made between the cultures as a platform to work from.

Chaman – see Shaman

Coca – (*Erythroxylum coca*, Fam. Erythroxylaceae). Used ritually by some indigenous tribes. The leaves are pulverized after slowly toasting them. They are mixed with the ashes of burned *yarumo* leaves and the resulting powder put into the mouth to slowly be absorbed.

Colonists – National and foreign individuals/communities who have for one reason or another settled in the Amazon region. Some of these people have adopted practices similar to the indigenous groups whereas others (the majority) have brought their practices and beliefs from the region they moved from.

- Corpoamazonia** - Corporación for the sustainable development of southern Amazonia.
- Curaca** – literally means healer but in the river communities the curaca is also the political head of community.
- CUS** - Comando Unificado del Sur – Southern Colombian military Commando force
- Finca** – small farm
- FIUPAM** – Federação Indígena pela Unificação e Paz Mundial - President – Manoel Fernandes Moura, based in Tabatinga.
- Gobernación** – local government – headed by Governor of Amazonas.
- Granadillo** – (*Brosimum brasiliensis*?) wood used for construction and artesanias
- Guamo** or **Guama** trees – *Inga* species of Fam. Leguminosae/ Mimosaceae (with sweet edible fruit)
- Historia** - The *History* is only related in the *mambeadero* (location of sacred communication with gods and ancestors within the *maloca*). It contains all the secrets necessary for the optimum manipulation and satisfaction of the material necessities of the group.
- Indigenous** – in our project we use the term indigenous people referring to the Amerindian tribal groups – translating directly from the term indigenous used in Colombia.
- Ideoma** – local language
- IES-CINOC** – Colegio Integrado Nacional Oriente de Caldas. Technical Institution of further education (university), which is a provincial branch of the Universidad Nacional de Colombia
- ICA** - Instituto Colombiano de Agropecuaria
- IMANI** – Instituto Amazónico de Investigaciones, Universidad Nacional de Colombia, National Institute for Amazonian Studies
- INPA** – Instituto Nacional de Pesquisas de Amazônia, Manaus, Brazil
- Latea** - type of wood used as a torch/light
- Maloca** - traditional indigenous longhouse – ritual and daily living space
- Mambeadero** - is the sacred ritual carried out each night in the maloca of preparation of the ritual coca. It is when permission is asked to make *chagras* etc, healing rituals are carried out and the *Historia* is told.
- Mambe** – Coca (ritual), see **Coca**
- Magüaré**– is made up of two long drums – representing male and female made of “comino real” wood. The male drum takes the figure of a man and is the thinner drum. The female drum is thicker and takes the figure of a woman. The drums are ritual elements. The drumsticks are made of rubber latex. Four different sounds can be played and they are heard from a distance of around 30Km. Our workshops/pre-workshops in the maloca were announced by Cacique Cayetano (km 6) using the Magüaré.
- Mycorrhizae** – fungal filaments that have symbiotic relationships with higher plant species.
- Observatorio Social de Leticia** – organization made up of professional volunteers interested in coordinating educational and conservation interests
- Pre-workshop** – workshop held before the main workshop with the objective of selecting monitors for the main workshop. Number of participants around 20.
- Policia Medio Ambiental** – Environment Police, policing National Parks with the purpose of protection of endangered species.
- Policia Nacional** – National Police who consist of various departments including environment police.
- Red de Solaridad** – Government organization helping socially deprived areas.

Resguardos - an area set aside by the Colombian Government for the benefit of the Indigenous inhabitants and the conservation of the ecosystem.

River communities – communities within a 60Km radius of Leticia invited to participate in workshops. They include: La Playa, Ronda, San José, Nazaret, Arara, Progreso, Yagua, Nuevo Jardín, Santa Sofía, Loma Linda, Nueva Zelanda, Parana Abajo, Puerto Triunfo, La Libertad, Zaragoza, Macedonia, El Vergel, Mocagua, Las Palmeras, San Martín de Amacayacu

Salado - Salt Lick – a place where animals, birds and insects go to take in mineral salts from the ground/springs

Sabana – Savannah - a grassy plain in tropical and subtropical regions

SENA - Servicio Nacional de Aprendizaje (national learning service)

Shaman (or Chaman) – Person with knowledge in the traditional and spiritual use of medicinal and other plants who has not necessarily followed a long career. Cf. *Abuelos-Sabedores(as)*.

SINCHI - INSTITUTO AMAZONICO DE INVESTIGACIONES CIENTIFICAS

Terra firme – Non-flooded forest area used after semi-clearance of land and some burning for preparation of chagras – shifting agriculture.

UMATA - Unidad Municipal de Asistencia Técnica Agropecaria

Vegetative Propagation - asexual methods of plant reproduction

Yarumo – *Cecropia* species, plant family Moraceae. Colonising or invador plant, important in Indigenous rituals (e.g. preparation of *Mambe*) and traditional medicine.

Yuca – *Manihot* species, including *M. esculenta* Crantz, and others, used to prepare starchy foodstuffs such as ‘*Almidon*’, ‘*Casabe*’, ‘*Fariña*’ (*Farinha* in Brazil), etc., and various traditional or ritual drinks such as ‘*Caguana*’ & ‘*Maniquera*’. Also known as Cassava (Caribbean and other areas), *Garé* (Africa), *Manioc* (Asia), *Mandioca* (Brazil), etc.

1. Darwin Project Information

Project title:	Preservation and Rehabilitation of the Colombian Rainforest by Indigenous People
Countries:	Colombia, UK.
Contractor:	
Project Reference No.:	162/9/008
Grant Value:	£175,500.00
Start Date:	April 2000
Finish Date:	March: 2003
Reporting Period:	April 2001 – May 2002

2. Project Background

The indigenous elders in Caquetá Medio, Amazon tropical forest, Colombia, identified the problem of deforestation being a problem, as they had to go further and further a field to find their medicinal plants. Their food sources such as forest animals were now scarcer and due to deforestation the streams were disappearing which had been sources of fish for family consumption. In Leticia, Amazonas, the problem is exaggerated due to the loss of traditional techniques of making traditional gardens (*Chagras*) and caring for the forest. In the area surrounding Leticia there is considerable deforestation and use of inappropriate farming methods. This has resulted in difficulties for the indigenous people in the area to feed their families in the traditional way. The indigenous people have identified a need for a solution to this problem, as have some organisations such as “Bienestar Familiar” who have set up projects with selected indigenous groups with a view to recuperation of some of these lost traditions – mainly by teaching very young children. These projects, however, only partly address the problem because the young child (from 0-5 years) is taught by his /her mother/grandmother how to take care of the environment and how to sow their plants in the *Chagras*. The woman traditionally works with her partner – the men and women having defined roles. The elders of the Amerindian groups in the mid-Caquetá and Leticia (Amazonas) areas of the Colombian Amazon rainforest have expressed a concern about the deforestation and inappropriate management of some areas of their *Resguardos*. This deforestation has been caused by various entities including colonists using the area for livestock grazing and non-traditional farming and hunting during the course of the last century or so.

This project works together with the Amerindian communities in the Colombian Amazon in Leticia and surrounding areas looking for practical solutions to the conservation of the

biodiversity of their environment as a means of elevating their standard of health and way of life. Not only will the project lend UK expertise in the conservation of the forest environment, planting techniques etc. it will help the indigenous communities preserve/recuperate the traditional knowledge held by their elders.

3. Project Objectives

The **overall general objectives** for the project are as follows (from project proposal):

- a) The scientific identification of plants that the “wise men and ladies” *Abuelos (as)-Sabedores (as)* of the community use for medicinal and other purposes.
- b) The scientific identification of the plants that the village elders know to be adapted to fit differing ecological niches.
- c) Collection and conservation of indigenous traditional knowledge (*Historia*, myth, story, legend and its materialization in daily life), their methods and techniques relative to the rehabilitation and conservation of the tropical rainforest and its environment.
- d) Exchange of knowledge and techniques with respect to reforestation, rehabilitation and conservation of the Amazonian ecosystem between indigenous experts and specialists from the institutions involved in the project.
- e) Documentation of biographies of the *Abuelos(as)-Sabedores(as)*, the traditional managers of the ecosystem complementing the documentation of the traditions.
- f) The development of traditional mixed species gardens (*Chagras*) for the cultivation and domestication of edible, medicinal and ritual plants.
- g) The reforestation of deforested areas close to the villages by a combination of traditional knowledge and scientific knowledge.
- h) Research to explain the biological reasons behind the indigenous knowledge associated with the insects, animals, plants, soil microflora/fauna and minerals within the tropical forest.
- i) Dissemination of the understanding about indigenous knowledge acquired by the project

As stated in the first year report, due to the difficult security conditions in Colombia it has been necessary to modify some of the objectives. In order to make plant and soil collections and set up plots it would mean the team members staying for defined lengths of time in the field (outside the Leticia area). Normally we live with the indigenous co-investigators in their homes and also, when on field trips, making appropriate camps in the jungle. This continues to be difficult at the moment from a security point of view and something, which we assess on a regular basis. We originally discussed this problem with Ms. Valerie Richardson (April 25th, 2001) and it was decided that for objectives (a) and (b) we (in particular, Blanca de Corredor, Ann Mitchell and Andrés Corredor) would collate this documentation of plant-use, etc., using photography and documented material (taped and written but so far unpublished) which we have collected over the past 20 years and which we continue to acquire. Many of the plants encountered thus far have been identified to the species level by indigenous parataxonomists such as Mr Elvis Cueva Márquez (Leticia), Oscar Román Enokayí (Araracuara, Caquetá), Eudocio Becerra Vigidimas (El Encanto, La Chorrera, Amazonas and Universidad Nacional, Bogotá) and other experts at SINCHI. It has been refreshing to note that in many instances, after collecting a plant in one region, the people from another region

recognise the plant by the same name and can lead us to the same or a related species in their area. This information is being used to construct a Catalogue/Database of Plants, etc., using local (vernacular, *idioma*) names and scientific (*Latin binomial*) names where possible. We have many years of experience in the field in Caquetá Medio observing the preparation of traditional *chagras* and indigenous reforestation techniques which we draw on for comparison with our more recent findings in the Leticia area. The material is being gathered in the Leticia area by means of the Darwin-sponsored workshops and short “casual” visits to the field. We are fortunate to have strong contacts in the area built up over some time (particularly by B de C, AMM & AAC) and we are able to work directly with the indigenous people in a way not normally possible.

We continue to investigate possibilities to, at some future date, make collections in collaboration with a local institution or organisation such as ICA, SINCHI, UMATA or U. Nacional-IMANI. Our Colombian colleagues (Dra Blanca de Corredor) have been approached by the Director of SINCHI (Dra Luz Marina Mantilla Cárdenas) to indicate that SINCHI are willing to collaborate with our Darwin team on the characterisation (botanical ID) of plants and other organisms. Dra. Mantilla has told us that SINCHI have a large data base and collections, mainly at head office, Bogotá with botanists willing to do ID.

The original project proposal had the objective (f) of setting up plots comparing reforestation techniques. This objective has had to be modified, as it would entail us setting up and monitoring “*terra firme*” plots in specific areas outside Leticia, which are not entirely safe for “foreigners”. This problem was also discussed with Valerie Richardson in the first year. It has been agreed to avoid doing this until security conditions are more reliably stable. However, we have a trial plot in Barrio Costa Rica (Leticia) on terra firme which is being monitored by the Nejeteyes and ourselves (cf. next paragraph). The UMATA (Alcaldía) have been keen to collaborate on this aspect but continual political changes have made this difficult. The Mayor approached us in April this year (2002) with a proposal for some joint project work. However, we would tend to consider this only if a local academic institution intervened as an intermediary. The recent change of Government in the Amazonas Department, and even more recently in Colombia as a whole, will hopefully have some positive impact on the situation.

On the bright side, and as a direct result of our Darwin Workshops, some of the local Indigenous leaders, such as Señor Augusto Falcon P. from the community Macedonia, Amazonas have decided to set up comparative plots (*chagras*) to compare their methods of agriculture with those (European methods) demonstrated by us (Dr Jan Dick and Dr Philip Mason, CEH) in the workshops. This can be seen as a “legacy” – locals carrying on the project themselves. In our more recent visit in October 2002, we have had reports of members of Km 6 comparing techniques in their *chagras*. Cacique Jitoma was at the workshop in October 2002 and as a result visited SINCHI, Leticia to set up dialogue with this governmental organisation. This is a strongly positive move as indigenous people are notoriously suspicious of governmental and non-governmental organizations and this will also strengthen the legacy of the project. With the Nejeteye branch of the Miraña Bora ethnic group we have set up a traditional plot on a piece of land in barrio Costa Rica, Leticia which was a *cananguchal*. The experimental *chagra* includes cashew (*Anacardium* spp), several different varieties of *yuca* (*Manihot* spp), Pineapple (*Ananas* spp), Sugar cane (*Saccharum*

spp), aji (*Capsicum* spp), plátano (*Musa* spp), rice (*Oryza* spp) *dormidera* (*Mimosa* spp), *guamo* (*Inga* spp). The *dormidera* and *Guamo* are nitrogen-fixing plants that improve soil quality.

Photographs 1, 2 and 3

Experimental Plot (*Chagra*) before and after planting

Before



After



As reported previously, additionally some members of local institutions, Mr Hugo Camacho (Bienestar Familiar) and his wife Fabiola, (*Red de Solaridad*), have set up plots at their *finca* (Km 15, *Carretera Leticia-Tarapacá*) to compare their local Tikuna agricultural methods with ‘Western’ methods (Dr Jan Dick, CEH) *cf. Page 44 (photos 27/28) of our First Annual Report, 2000-2001*. However, travel to these areas has been problematic recently due to security issues in the country and we have not been able to follow up on these plots personally.

Another ‘plus’ for our Darwin Project is that a number of young participants in the workshops, e.g. Mr Luis Gabriel Teteye (Indigena Bora), have decided to return to their communities to study with their *Abuelos-Sabedores*. Our workshops have been open to school children and college/University students and we have had good attendance in the second year workshops from schools such as the NORMAL, INEM and San Juan Bosco which also is an important factor in the legacy of the project. The directors of the primary/Nursery School “*Selva Alegre*” have also requested that we try to set up a school exchange. The initial steps have been taken to set the base for an exchange (see Appendix 8). When this project (our Darwin-sponsored project) was originally proposed we were led to believe, by local contacts in Leticia City, that there were no *Abuelos-Sabedores* in the Leticia area. This prompted us to plan the involvement of elders (*Abuelos-Sabedores*) from Caquetá Medio, the plan being to bring two elders (Uitoto), who have retained their traditional knowledge, to Leticia for the workshops in the second year. However, during our initial visits to Leticia in 2000-2001 we encountered a number of *Abuelos Shamans* including Juan Andoque Andoque (ethnic group Andoque, originally from Aduche (Caquetá Medio) but now living on the Carretera Tarapacá-Leticia) and Manoel Fernandes Moura (ethnic group Tucano, living in Tabatinga, Brazil). In our field trips to the rainforest, some of which have been to Peru and Brazil to avoid security problems in Colombia, we have also encountered Peruvian *Abuelos-Shamanes* such as the Shamans Juan Cobos Rios (ethnic group Yagua/Quechua, Nueva Zelanda, Peru) and Umberto Tikuna (Ethnic group Ticuna, Laguiño, Peru). We also have an important colleague in Eudocio Becerra Vidigimas (ethnic group Uitoto, El Encanto, Rio Carapaná, Amazonas), who is a Professor of Linguistics at the Universidad Nacional de Colombia, Bogotá, and lives in Bogotá most of the time.

We have discovered that the security situation has seriously affected the ability of the indigenous people to travel within their own *Resguardos* but especially to traverse outside these areas. For instance, Cacique Fisiói Andoque came out from the Resguardo Aduche to attend the first Darwin Workshop in Leticia in November 2000. He encountered difficulties returning home to Aduche owing to the security problems on the Caquetá River.

4. Progress

The project has progressed from the first year (during which two workshops were held – see first year report) *via* implementation of two workshops in Leticia, Área Cultural of the Banco de La República, and five field research/visits some of which were added to allow the Colombian partners to closely monitor the security situation and/or to make preparations for, and to ensure the success and safety of, the forth-coming workshop(s). Journeys also made to deliver letters of thanks to communities and invitations to the next workshop, to local Amazonas communities in Colombia but also to contiguous areas of Brazil (eg. Tabatinga) and Peru (eg Vista Alegre, Sacambú, Laguiño and Nueva Zelanda (see maps Appendix 1)

July / August field trip by Blanca de Corredor, Ann Mitchell and Sandy Gray to Leticia; to deliver letters of thanks/invitations to local communities and to carry out a field trip. A trip to Brazil (Tabatinga /Manaus) to visit INPA, Manaus to hold discussions with colleagues for preparing joint research proposals. This trip was also fruitful in that we made contact with a medical doctor from Antioquia /Medellin, Dr Carlos Gutierrez T., with interests in the use of traditional medicines. Of particular importance during this visit was the fact that the team made the initial contact with the Chaman Umberto Ticuna, who lives with his family in Laguiño, Peru (see Map 3, Appendix 1). He is one of the few Shamans in the region of Leticia but in fact lives more than five hours river journey over the flooded forest into Peru.

Blanca de Corredor visited Leticia in Sep 19 - Oct 1, 2001 and to check on the security situation, to make advance preparation for the forth-coming Darwin Workshop(s).

Field trip made in November 2001, additional to workshop activities, to Amazonia area around Leticia to visit local communities.

Original proposals for the workshops to involve about 20 people were once again exceeded. The first workshop in November 2001 [*Métodos de Preservación, Recuperación y Manejo de la Selva Tropical Amazónica*] (Methods for the Preservation, Recuperation and Management of the Amazon Rainforest) attracted around 60 participants, the majority of whom were from indigenous communities. The numbers attending this workshop were less than expected but was probably due to the fact that the Workshop, originally planned for early October, had to be postponed due to the Banco de La República facilities being used as a venue for a Government Security meeting in the aftermath of September 11th, 2001.

Blanca de Corredor, accompanied by her granddaughter Vanessa, visited Leticia in January 2002, to check on the security situation and to make advance preparation for the forth-coming Darwin Workshop. They also made a journey over many miles of flooded forest to look for Umberto Tikuna again and to locate a well-known Shaman in Peru, Juan Cobos Rios – one of the few *abuelo* shamans to be found in the area. They were successful in this difficult task – the indigenous families in these regions move about depending on the conditions – e.g. the forest floods periodically, where their *chagras* are etc. Shamans and *abuelo sabedores* are extremely difficult to locate, firstly because information about them is scarce and secondly

because they travel over great distances/area treating their patients. Juan Cobos Rios recently attended an international symposium on shamanism in Rio de Janeiro, Brazil – a journey that took him away from home for about one month.

Field trip made in April/May 2002, as an ‘add-on’ to workshop activities, to Amazonia area around Leticia to visit local communities.

The number of participants for the second workshop in April 2002 [“Métodos de Preservación, Recuperación y Manejo de la Selva Tropical Amazónica” (Methods for the Preservation, Recuperation and Management of the Amazon Rainforest)] was approximately 170. The workshops successfully drew together active participation from around 60 indigenous communities including Brazilian, Colombian and Peruvian, academic, governmental, non-governmental and private institutions. The documentation (audio-taped, filmed & written) of research work with indigenous specialists, the *Abuelos(as)*, was carried on in Bogotá and Leticia during the whole year (see Appendix 2).

Progress of Project

The following Spreadsheet, with Appendices, provides a full account of the years' activities and outputs.

Table 1 Progress of Project

Month	Original Projected Key Milestones	Actual Progress/activities
Apr 01 – May 02	Continuation of investigation on the social aspect of the environment.	Continuation of the investigation on the social aspect of the environment was achieved during field trip by Ann Mitchell, Blanca de Corredor, Sandy Gray and Andres Corredor July 11 – 29 and Blanca de Corredor 23 Sep – 4 Oct. In Bogotá the investigation has been carried on by continuation of work with Eudocio Vigidimas.
Apr 01 – Mar 02	Survey of areas where the indigenous people grow their plants continues.	Survey of <i>chagras</i> where the indigenous people grow their crops was continued – field trip by Ann Mitchell, Blanca de Corredor, Sandy Gray and Andres Corredor July 11 – 29 and Blanca de Corredor 23 Sep – 4 Oct..
Apr '01– May, '02	Recording and documentation in native language of traditional knowledge on forest issues continues	Continuation of documentation of traditional indigenous methods of preservation of the environment with Eudocio Vigidimas and his uncle Jacinto, when available, aided by video recordings, tape etc. This was carried on in Bogotá and also on the field trips – see Appendix 2. Professor Vigidimas was also able to accompany us on a short field visit to Colombian/Peruvian <i>chagras</i> in November 2001.
Nov 01 – May 02	Continuation of work on booklet on plant propagation	Planning for this has been done throughout the project so far. Dr. Jan Dick worked with workshop participants on this during her visit in November 01 (Nov 10 – 16 and pre-workshop Nov 10). This material is being put together as a preliminary documentation of indigenous and CEH methods as a record for participants and communities. It is being collated in written form (Exhibit 8 and on CD (Exhibit 9, additional output) This will be completed during final year of project.
Apr '01– May, '02	Continue observation and documentation of uses of plants from mixed species gardens.	Continued observation and documentation of uses of plants from mixed species gardens (<i>Chagras</i>) in field trips to Leticia made by Ann Mitchell, Blanca de Corredor, Sandy Gray and Andrés Corredor July 11 – 29, '01. October 06 – November 18 and April 5 – April 28, '02, and by Blanca de Corredor 23 Sep – 4 Oct, '01 and Jan 14– 31, '02.
Apr, '01	Workshop held to work on the results of the first year and to discuss forthcoming work (investigation team plus	Visit of Blanca de Corredor (March 23 – April 29, '01) to Scotland to coordinate work, participate in workshop 'Preservation and Rehabilitation of the Colombian Rainforest by Indigenous People' – one day workshop intended for about 20 people. Around 14 people, over and above the project team came. All of the UK core team participated with Blanca de Corredor and Mario Aguilar from St. Andrews University giving a lecture on the individual methods, which this team has used. This meeting proved to be very important for the team members themselves to appreciate the importance of individual contributions to the overall multidisciplinary

	<p>university researchers and staff directly involved in project) - ca. 20 people for three days.</p>	<p>project (Programme – see Appendix. Blanca de Corredor gave a lecture on Indigenous Religion in St. Andrews University (about 20 people), and imparted results of the first year of this Darwin project. A lecture was given at Napier University (to about 30 people), on traditional medicine/ recuperation of the forest by indigenous people (Faculty of Complementary Medicine).</p> <p>The visit also included a meeting with Valerie Richardson (DARWIN, DETR) in Edinburgh (25/04/01) to discuss progress of project, security measures, modification of project objectives (see above) and to look for advice for searching for funding.</p>
<p>Jul 6 – Aug 6, '01</p>		<p>Sandy Gray and Ann Mitchell visited Colombia for one month to coordinate activities, and participate in a field expedition to Leticia and surrounding areas with Blanca de Corredor and Andrés Corredor.</p> <p>The field trip objectives were to follow up on first year workshops, commence preparation for next workshop and to carry out field research. The team listened to the indigenous people, researchers and institutions monitoring the impact of the first year's activities and planning for the next. The team commenced the search for leaders and monitors for the November workshop. They visited Peru and Brazil to determine the likelihood of participation of neighbouring countries in the workshops and the possibility of a new proposal to build up a comparative of <i>Chagra</i> planting on river banks when the river level rises and falls and terra firme <i>chagras</i>..</p> <p>We were also looking into contingencies / alternatives for continuation of fieldwork, etc. should security in Colombia become a serious problem.</p> <p>Contacts in Peru included Chaman Juan Cobos Ríos, Nueva Zelanda, Peru and Umberto Tikuna, Laguiño , Peru.</p> <p>The contacts in Manaus, Brazil were– Dr. L. Rubens Piedade, phytochemist /chemoecologist and Dra. M.T.F. Piedade, biologist and specialist in Central Amazon floodplain sustainable management and colleagues at INPA, Amazonas, AM. (see Appendix 5)</p>
<p>Apr '01– May, '02</p>	<p>Continuation of activities set up in first year, following a similar timetable (if appropriate & based on experience of first year).</p>	<p>In first year it was agreed that it was not convenient (security situation) to either collect samples or set up plots at this time. This would require a much more sustained presence of the project team located in the area. Fortunately the method of working together in workshops is proving to be much more fruitful and involves a much larger sector of the Amazon communities. The local people are themselves experimenting with the ideas brought out in the workshops. For example, The river Amazonas community at Macedonia (Leader; Mr A. Falcon Perez) is testing agricultural methods illustrated by CEH as a sustainable management method <i>vs.</i> their <i>chagra</i> system.</p>
<p>Sep 19- Oct 1, '01</p>		<p>Blanca de Corredor went to Leticia and made final arrangements for the November workshops on plant propagation. As on previous occasions Blanca surveyed the security situation. She has reported that there is enormous support and interest by the local Leticia/Amazonas people for the forthcoming workshop.</p>

Nov '01 and Apr '02	Training workshops held on plant propagation/ forest recuperation/chemistry techniques in Bogotá/Leticia. Training workshop held on plant chemistry techniques (three days - 20 people). 6A/B	<p>Workshop continuing the theme 'Methods'. The workshop entitled "Métodos de Preservación, Recuperación y Manejo de la Selva Tropical Amazónica" (Methods for the Preservation, Recuperation and Management of the Amazon Rainforest) took place in Leticia in November 9 – 16, 2001. This was originally planned for October but was rescheduled due to unavailability of Banco de La República facilities in aftermath of September 11th. The programme included pre-workshops (Nov 9 & 10) "<i>Chagras de Los Espíritus</i>" presented by Dr Alvaro Andrés Corredor and Dr Xavier Hurtado "Rutas por Objetos de Creación, Celebración y Preservación de la Vida" at the Maloca Km 6, Nuevo Milenio. The former pre-workshop was a continuation of the "<i>chagras de los espíritus</i>" workshop and as before was set up to prepare monitors and leaders fro the main workshop in the bank. The main body of the workshop (Nov 13-16) was held in the Salon of the Banco de La República. (See Appendices 3 and 7 for programme details). The number of participants was around 60 and included indigenous leaders from river and "carretera" <i>resguardos</i> from a local 60km radius, other departments, local and international institutions (governmental and non-governmental) as well as from the private sector. Requests were made to continue with the method used in workshops to work together on local problems of conservation and reforestation. Copies of work (workshop results and maps in hard copy and CD/video tape.) were presented to the library of the Cultural Section of the Banco de la República to be available for reference and copying as required. The numbers of participants for the second workshop in April 2002 ["Métodos de Preservación, Recuperación y Manejo de la Selva Tropical Amazónica" (Methods for the Preservation, Recuperation and Management of the Amazon Rainforest)] were approximately 170. The workshops successfully drew together active participation from around 60 indigenous communities including Brazilian, Colombian and Peruvian, academic, governmental, non-governmental and private institutions. For content of workshops see programmes – see Appendices 3 and 7.</p>
Apr '01 – May 30, '02	17 weeks spent in Colombia by UK team	More than 19 weeks have been spent in Colombia by UK team (Sandy Gray, Ann Mitchell and Jan Dick). Additionally Dr. Xavi Hurtado, Universitat Pompeu Fabra, Barcelona, Spain spent three weeks in Colombia on project activities.
Apr '01– May, '02	<i>Abuelos(as)</i> visit Leticia for around three months of the year depending on availability and conditions.	<i>Abuelo-Sabedor</i> Professor Eudocio Vigidimas, Ethnic group Uitoto, was invited to Leticia in November '01 and April '02. These were for short visits to participate in workshops, exchange techniques of forest management, participate in rituals and continue to confirm local expertise. Around 60 indigenous leaders were invited to the workshops. Since making this Darwin application, it has been found that, contrary to previously received local information, we now know that there are several wise ladies and men in the area who still hold a great traditional knowledge (for example, Juan Andoque Andoque). We have also found that the workshops themselves are attracting indigenous elders and wise people from many (sometimes very remote) <i>Resguardos</i> in Colombia, Brazil and Peru. For instance, we have made some very long expeditions through the flooded forest and by open river into Peru to search and find two Shaman

		elders (see Appendices 1 and 2) – one of them Tikuna and the other Quechua/Yagua. These trips are expensive because the only safe and reliable mode of transport is motorised canoe, and gasoline and the services of a responsible guide are expensive.
Apr '01– May, '02		Sandy Gray and Ann Mitchell coordinated project activities and planned in Scotland workshops with CEH and Colombian Institutions. The Darwin project work continues to be included in Sandy Gray's undergraduate Master of Pharmacy Under-graduate Degree course work (around 230 students) and MSc teaching (about 30 students). Ann Mitchell, Sandy Gray, Blanca de Corredor and other members of the team have included the project work in lectures given at invited public events around Scotland and worldwide. For example, the Darwin team (AMM, B de C, AIG) was invited to speak to various groups, University of Strathclyde, to approximately 120 post-graduates from around 12 different countries (mainly China and Malaysia, taking English Language ELTS classes).
Apr '01– May, '02		Editing of film material continued (programmed for third year but immediate feed-back material requested by workshop participants)
Apr '01– May, '02		Looking for funding sources to continue project, write up proceedings of workshops, also for possible Multilanguage book – Eudocio Vigidimas, Blanca de Corredor, Ann Mitchell, Sandy Gray
Apr '01– May, '02	Documentation field observations, collating material, organising data for production of a catalogue of <i>Chagra</i> plants (revised objective)	Documentation of field observations, collating material, organising data for production of a catalogue of <i>Chagra</i> plants. Organisation of data being carried out between team members in Colombia and UK and coordinated in Bogotá when Ann Mitchell and Sandy Gray made their Colombia trips (July 01 – AMM/AIG, Nov 01 AMM (plus Jan Dick), March – April 02 – AMM, AIG). Setting up and documenting a <i>chagra</i> in Barrio Costa Rica, Leticia a terra firme <i>chagra</i> – by Nejeteyes – to be monitored by them and us – this is very close to where we stay when in Leticia for workshops etc. (See Photo 1).
Apr '01– May, '02		Project coordination is carried out continually making particular use of visits of Ann Mitchell and Sandy Gray to Colombia Bogotá when Ann Mitchell and Sandy Gray made their Colombia trips (July 01 – AMM/AIG, Nov 01 AMM (plus Jan Dick), March – April 02 – AMM, AIG) and Blanca de Corredor to UK (April – May 01)

Like the first year we were able to carry out workshops with care in Leticia and so we concentrated our energy into workshops there rather than running any workshops in the Bogotá universities. The security has also affected the situation in the universities and there have been incidences of sometimes indiscriminate shootings, bombings and kidnappings in the universities in Bogotá. The overall work ran to schedule given that timings of workshops had to be adjusted to suit local conditions (to cater for the needs of the wide variety of participants) and in particular to fit into the timetable of the organisations hosting workshops and pre-workshops (Banco de la República and Comunidad Nuevo Milenio Maloca Km 6).

Project Research and Training

Training

As we said in the first year report, the Darwin funding for this project is mainly channelled into workshops, which are based on an exchange of techniques and knowledge with an overall view to recuperation and preservation of the Colombian rainforest. The training provided by British specialists is intended as a catalyst to bring forward the importance of traditional indigenous expertise in preservation of the rainforest.” For the second year we have brought in a number of Colombian specialists in different areas to compliment and foster exchange with British expertise, in the hope that by facilitating these exchanges at a national level, this will build up a successful exit strategy. The workshops continue to act as a platform to illustrate & highlight problems that are being faced by the indigenous communities in Leticia and the surrounding areas. The April workshop finished with a day for *sabedores* and a day for institutions to discuss at workshop level conservation/ecological problems related to preservation of the rainforest together with possible solutions. For the indigenous *sabedores* this part of the workshop is seen as a preliminary “opening” of discussion (“the tip of the iceberg”) as they have gone on to discuss this at ritual level in the communities for many days. For this reason the *sabedores* have requested workshops having a duration of at least 3 weeks(!)

The comparison of techniques for sustainable management of agroforestry systems presented by specialists from CEH, Scotland and Colombian experts such as Nixon Cueva Marquez at the Darwin Workshops, has spurred local communities in the Amazonas region to set up comparative plots comparing their *chagra* system of agriculture with ‘western’ methods.

The animated discussions and number of participants, particularly indigenous, at the April workshop would indicate that we are being successful at bridging teaching/communication between cultures. Follow up with the communities has also indicated this. We believe this is in part due to

- the fact that our project team (Blanca de Corredor, Ann Mitchell, Sandy Gray, Andres Corredor) have direct and lasting contact with locals and have worked and lived with indigenous people for many years in Caquetá - Medio (well over 20 years).
- The design of workshops entitled “*Chagras of the Spirits*” charted the traditional indigenous knowledge with respect to spiritual ‘owners’ of the forest. This directly dealt with the relationship between man and the forest and traditional methods of conservation of the forest – these workshops/pre-workshops bridging the “divide” between “ethnic” and “scientific” cultures.

Workshops

Workshops carried out were as summarised in Table 1 and Appendices 3 and 4 and consisted of the following:

- Pre workshops – bridging by “chagras de los Espíritus” (see p. 19)
- Workshop(s) on deforestation issues held, Workshops with communities, institutions, youth (colleges, schools, universities) and families
- Continuation of workshops on chemistry of ecosystems
- commencement of workshops on traditional medicine versus allopathic medicine,
- comparison of problems found after deforestation in UK with those in Amazonia – a reflection on the worldwide importance of conservation of our planet – e.g. The story of the Caledonian forest (where is it now, what are the consequences of losing most of it, and some of the real problems experienced/being experienced in restoring it).
- Field Visits for workshop preparation and for research purposes

Research

Due to conditions in Colombia, the research work with the indigenous people around Leticia is being limited to short visits. However, as the team already have many years of preparation, short visits are sufficient. The research is being carried out by two main methods:

1. Visits to Leticia and surrounding area to observe and document traditional method of preservation of the environment, *chagras*, *chagra* plants, plants used to recuperate the forest.
2. Widening horizons to find contacts over the border in Peru and Brazil to be able to carry out field work without so much threat of security problems. For this reason a river trip were made to Manaus, Brazil to INPA and to *resguardos* in Peru – building up on contacts already made as well as new ones.
3. Working with Sabedores who either live in Bogotá (such as Eudocio Vigidimas) or who are visiting (see Appendix 2).

Research Activities

The following research activities carried on during the whole of the second year of the project.

Investigation on the social aspect of the environment commenced in Bogotá and Leticia in the first year and this continued throughout the second year. In Bogotá Professor Eudocio Vigidimas works with Blanca de Corredor (Appendix 2) and this continues. When his uncle, Jacinto, is able to come from La Chorrera, (Putumuyo – Amazonas) the work is carried on with both *Abuelos* in Bogotá.

Survey of *terra firme chagras* where the indigenous people traditionally grow edible, medicinal and ritual crops has been continued in the second year particularly in Brazil and Peru. This work will continue throughout the three years of the project. Gradually a comparison will be built up between *terra firme chagras* in Leticia and surrounding areas with those studied in previous years in Caquetá Media. It is to be noted that this will be fieldwork which will continue many years after the Darwin funding has finished as it is very extensive work. We are working now with an increasingly diverse selection of tribes. Just the observation is complicated, as the various agricultural practices have to be observed in different seasons. In order to do justice to this type of work a complete understanding of the rituals involved has to be built up – this in itself requires years of patient fieldwork.

Continuation of documentation, in native tongue (Uitoto Language), of traditional knowledge on forest issues started in Bogotá - Blanca de Corredor with Eudocio Vigidimas and his uncle Jacinto from La Chorrera in Bogotá. This is very painstaking work just to document, the translation from Uitoto to Spanish is a huge amount of work – and this project will only cover a portion of this. We will do as much as we can, taking into account the time of the project team and the funds available. We have found the camcorders to be an invaluable part of our work to complement audiotaping and the written work. This work is forming important archive material for the indigenous collaborators as well as the project researchers. (See Appendix 2)

Continuation of observation and documentation of uses of plants from mixed species gardens – *terra firme (chagras)* during the teams five field trips to Leticia and surrounding area. This work is continuing in the field and in Bogotá with *Abuelos* Eudocio and Jacinto, and other *Abuelos* visiting Bogotá. As outlined under ‘difficulties of the project’, protracted visits to field sites outside the town of Leticia are inadvisable due to current security situation.

A new application/proposal is being prepared relating to the different methodology for handling the periodically flooded riverside plantations. The need for an investigation into sustainable management of riverine *chagras* has been identified during this project. These plantations are flooded every year for extensive periods of time and the handling of these is therefore very different from *terra firme chagras*.

(see Appendices 2 and 5 for examples of research being carried out)

Documentation, preparation of Booklet and Film

During the second year the project team have been planning and collecting material for the preparation of the booklet and film/CD. Interim films, which have been roughly edited of the workshops, have been shown to the participants and lodged with the Banco de la República – public library section for ready access by local population/ communities/ institutions/ individuals..

As can be seen the project team have had their work cut out with preparing and following up the workshops. As has already been mentioned extra visits had to be made to check out security and conduct coordination in person (not via phone, Email or fax – which may compromise security – assisted in some of this by the British Council “diplomatic bag”).

Difficulties

We originally had a problem of finding a reliable NGO/agent to assist with the overseeing and disbursement of funds in Colombia. The indigenous people are sceptical of most organisations such as NGO's (probably dates back to Casa Arana and “Rubber Extraction Companies” and we have found are not prepared to work with researchers and specialists involved in them. The Universidad de Los Andes and British Council were approached but required that we pay ‘overheads’ of 30% or 10% of managed funds, respectively. Ultimately we opened a separate account in a bank in Bogotá, in the name of the project, that is controlled by Dra Blanca de Corredor. Transfers from U. of Strathclyde to this account only attract the normal bank transfer charges (US\$ 15.00-50.00) and our Colombian partners do not incur the additional costs of travel, etc within Bogotá that would otherwise have been involved with a NGO/agency. More recently, during 2001, the Government has levied a tax (3%) on all bank transfers. Many companies, especially the air carriers within Colombia such as Aero República, have increased prices/fares in certain areas of the country as a ‘war tax’. For instance, larger planes are now used on routes that once used quite small planes, as it is more difficult to land the larger jet planes on very small airstrips such as jungle clearings (ie. To hijack a large jet and abscond with it into to the jungle). This had increased overheads for airlines – they have now to charge and “*impuesto de guerra*” (war tax).

Thus security problems together with continued large numbers of participants in the workshops, have been mostly responsible for increased costs for the year, but were very worthwhile! As mentioned under 3 (objectives – page 9), some of the project objectives have had to be modified with these security considerations in mind.

The workshops continue to require very careful organization especially when we have such a diverse range of participants. We have to prepare for the workshops well ahead and follow up results in communities. This is very time consuming and is difficult due to the number of communities attending, their disperse locations, and the security issue. The communities have

indicated that they consider the workshops a very important method of exchanging knowledge of ecosystem management and getting the people together to talk about important conservation issues looking for solutions. The workshops however, do not begin and end at the workshop itself. The local people spend many weeks preparing ritually in communities and then many weeks relating the information from workshops (orally) in ritual settings in their communities. It is only now that they feel that they are getting started to look for solutions and to work towards a more integrated approach working together with the different institutions locally as well as nationally and internationally. We have had practical help in the organisation of the workshops by local and National institutions as well as by the indigenous people themselves. Without this help (much of it in kind) the workshops would not have been a success and we could not have carried out the work on this scale. Nevertheless we have overspent our Darwin Initiative budget with the workshops – we would consider this to be worthwhile when the people themselves are highlighting the need for the workshops. This is even more important when we consider that the indigenous people have to work hard to attend the workshops (they give up more than a week of their work whether it be paid work or for daily subsistence for each workshop attended).

For the reasons stated in the first year report, the documentation and cataloguing of plant use etc. is being done so far on an observation and photographic level. For continuing work, firm contacts have been made with the Universidad Nacional de Colombia, IES-CINOC and SINCHI to collaborate in the making of collections for herbarium specimens etc. However, local, national and international institutions have been restricted by the security situation – this has become more critical over the last two years with threats against many institutions including private and governmental – many of which have been followed up by bombings, etc.

Possible Solutions to some of Problems:

1. Although we have overspent our budget over the last two years, we decided to run a further workshop in Leticia, although this was not in the original proposal. This was done due to requests from the indigenous leaders and local institutions (particularly the Banco de la República). This workshop was run in October 2002 and we required a lot of voluntary contributions from team members, but we have a strong group of participants who are now firmly committed to working together towards preservation and conservation of their Amazon environment.
2. Film editing. We have presented the library of the Banco de la República with films of the first and second year workshops, as well as films of any material requested by participants. For this reason, we requested £6000 to be brought forward from the third to the second year. With this money we were able to buy another computer, scanner and printer and an extra camcorder, which have helped us in producing intermediate written and film material. This has enabled us to edit film from one camcorder to the other and to make film “grabs” to computer for editing purposes. As we also have a CD copier, we are presenting the material in CD form to the library in the Banco de la República and interested institutions, to disseminate the material more readily. We have had to learn to do a lot of this work ourselves as on the one hand it is too costly to employ others and, on the other

hand due to the complicated nature of the diverse content of the material to be edited, the person employed does not understand the importance/significance of some material. Additionally we are dealing with various languages - Spanish, English, Portuguese, indigenous languages.

3. As stated above, instead of making physical collections of plants we are now cataloguing the plants, together with the help of indigenous people with whom we have been working, using photographs, drawings and local names. We are also fortunate in being able to make direct comparisons with the work we have done in Caquetá Medio in earlier years.

Design:

The project is built around, and centred on, working with indigenous Sabedores (as). The methodology used has been developed over more than 20 years and has been found to be the most appropriate. We continue to modify the design of the workshop depending on the feedback from participants – both indigenous and non-indigenous. We are continually monitoring this directly with the indigenous people as far as we are able considering security and funding as many communities are participating. The design of the project with respect to research techniques and workshop activities has not changed. For this reason also the main researchers in the project have made additional visits to the communities of Leticia and surrounding areas, preparing the people from at least six months in advance of the actual formal workshops. The indigenous people have then had time to prepare themselves ritually for these events. We continued to use the format of running a pre-workshop in the maloca at Km 6 Leticia when possible (October 2001) and this continued to be very successful and enabled the selection of monitors for the main body of the workshops. This technique has been carried over to the third year.

Workplan/timetable:

Table 2 Workplan/timetable:

Month	Proposed Activity
July 10 – Aug 4 2002	Visit of Alexander I. Gray plus one other to Colombia for 3 weeks with the objective of making field trip to Leticia and surrounding areas (Colombian, Peruvian, Brazilian sabedores) together with Blanca de Corredor. This field trip is to follow up on the second year workshops, commence preparation for next workshop and to carry out field research. As on previous occasions, the team will be listening to the indigenous people, researchers and institutions monitoring the impact of the first year's activities and planning for the next. The team will be looking for leaders and monitors for the October/November workshop. Visit to Peru/Brazil to determine likelihood of participation of neighbouring countries and to continue the comparative of <i>chagra</i> planting <i>terra firme</i> and to identify areas for possible research of riverine <i>chagras</i> when the river level has dropped. Looking into alternatives for continuation of fieldwork etc. if security in Colombia becomes too much of a problem. Δ
Aug 05 – Aug 04 2002	Visit of Blanca de Corredor to coordinate present and future work, work together with Sandy Gray and Ann Mitchell, visit CEH and University of St. Andrews. Δ
Sep/Oct 2002	Visit of Blanca de Corredor to Leticia and surrounding areas for one week for final coordination of October workshop and security check. Δ
Oct 19 – 15 Oct 2002	Workshops in Leticia – continuation of <i>Chagras de Los Espíritus</i> – agroforestry methods, indigenous methods of conservation of the rainforest, encounter of traditional and western medicine meeting days for ethnic elders and leaders and institutions, analysis of work done over 5 workshops and vision of way forward. Workshop coordinated and run by Dras Blanca de Corredor and Ann Mitchell together with the Universidad de Los Andes (Prof. Roberto Pineda). Pre – workshop held in maloca at Km 6 Leticia and formal part of workshop in the

	Banco de la República with Dra. Gloria Revello. Visiting specialists: Dr. Nixon Cueva, Universidad de IES-CINOC, Professor Eudocio Vigidimas, Dr. Carlos Gutierrez, Dr. German Benitez, Drs. Sandy Gray and Ann Mitchell. Presentation of draft manual/CD CEH (by AIG and AMM). Continuation of phytochemistry workshops by Dr. Sandy Gray concentrating on effect of plant medicines in the human body. Based on work done with Drs. Phil Mason, Ann Mitchell and Sandy Gray presented a comparative of problems of deforestation in UK and Amazonia. Presentation of draft form of results of workshops to date. Δ
Oct 10 – Nov 4	Visit of Ann Mitchell and Sandy Gray to Colombia to coordinate project work and participate in workshop and field trip – Leticia and surrounding areas.
Dec 2002	Blanca de Corredor will make a quick trip to Leticia of around 7 - 10 days to follow up on October workshop. ◼
Dec 2002	Lecture to Edinburgh ladies community, Methodist Church (Nicolson Square) on project activities. Δ
Apr 02 – Mar 03	Continuation of documentation of traditional indigenous methods of preservation of the environment with Eudocio Vigidimas and his uncle when available, aided by video recordings, tape etc. ◼
Apr 02 – Mar 03	Coordination of workshops and projects both in UK and Colombia. Δ
Apr 02 – Mar 03	Editing and production of film material continues ◼
Apr 02 – Mar 03	Continuation to looking for funding sources to continue project, write up proceedings of workshops, also for possible Multilanguage book – Eudocio Vigidimas, Blanca de Corredor, Ann Mitchell, Sandy Gray. ◼
Apr 02 – Feb 03	Documentation field observations, collating material, organising data for production of a catalogue of <i>Chagra</i> plants. ◼
Apr 02 – Mar 03	Preparation of Booklet – comparison of UK and indigenous techniques of plant propagation. Preparation of 2 CDs – comparison of plant propagation techniques and comparison of microflora – UK – selva Colombiana - Comparison of conservation issues. ◼

Δ Activity has already successfully taken place and will be reported in final report

◼ Activity in progress

- **Partnerships**

Collaboration between UK and Host Country (Colombia)

National

This project was set up by the international team of researchers, thus project identification was shared. The project was a spin-out from a British Council Academic Link, which brought together a British and Colombian nucleus of people including anthropologists, microbiologists, pharmacists, plant physiologists, phytochemists, artists, mycologists, biologists, medical specialists (surgery, homeopathy, traditional medicine), parataxonomists, linguists, ritual studies specialist, media studies specialist and indigenous *abuelos (as) Sabedores (as)*. The project has concentrated on involvement of indigenous communities, this



is being constantly augmented – for example we now have participation from representatives of communities over the Brazilian and Peruvian border. The workshops continue to bring together all sectors of the Leticia community including indigenous leaders and personnel from *resguardos* (up and down the river Amazonas, the carretera and from Caquetá Medio), institutions (Governmental and non-governmental) and the private sector. Many of these groups do not usually communicate (mix) well together due to strong cultural barriers. The involvement of such diverse groups in this project continues to surpass expectations.

International

As in the first year of the project, seminars and workshops in Leticia were attended by folk from the neighbouring countries, Brazil and Peru some from Government Institutions as well as private sector. Seminars, presented by team members, were also held in various Universities in Scotland, including Napier's, St. Andrews and Strathclyde, and Dr Gray has presented lecture courses to under- and post-graduates (Science) at Strathclyde and the Scottish School of Herbal Medicine, Glasgow. Lectures have also been given to community groups in Scotland including the Natural History Society in Helensburgh and ladies Church groups in Tranent and Edinburgh. Additionally, Blanca de Corredor, Ann Mitchell and Alexander I Gray gave a lecture to the IELTS (international students at Strathclyde University).

Number of local partners who have worked to date on project activities:

1. UNIVERSITIES: 5
2. GOVERNMENT INSTITUTES: 6+
3. NGOs: 2
4. COMMUNITIES: 30 + - at least 18 river communities, 12 carretera communities and representatives from Caquetá Medio, Mirití, La Chorrera in Colombia and Brazil and Peru.

Names of Main Local Partners:

Universidad de Los Andes
Banco de la República (Cultural Section)
Unidad Municipal de Asistencia Técnica (UMATA)
Universidad Nacional de Colombia (IMANI)
Instituto Amazónico de Investigaciones Científicas (SINCHI)
Maloca Km 6, Nuevo Milenio
Policia Nacional, various sections including Medio-Ambiental (Environment)
Gobernación and Alcaldía of Amazonas
Departamento de Salud (Department of Health)

Wisemen, Wiseladies, healers etc. from communities in Leticia and coming from over a local 60Km radius from river and *carretera* communities and from Caquetá Medio and Mirití Included were members of Andoke, Bora, Cocama, Muinane, Tikuna, Uitoto, Yagua, Yukuna, tribes

Shamans from Sacambu and Nueva Zelanda, Peru (Tikuna and Quechua)

President of Federação Indígena Pela Unificação e Paz Mundial FIUPAM – Manoel Fernandes Moura – ethnic group Tucano living in Tabatinga, Brazil.

Universidad de Tolima (Forestry Dept) sent postgraduate students to the course

Universidad de IES-CINOC, Pensilvania, Caldas

Universidad de Antioquia, Medellin

6. Impact and Sustainability

Impact:

The main impact of the project has come in the successful outcome of the five workshops. These have brought together a diverse group of indigenous, institutional, local, national and international people to work on problems of degradation of the Amazonian environment and to look at solutions to those problems. As these workshops were based round the indigenous (Amerindian tribal) beliefs and knowledge this brought the tribes and communities together and gave them confidence to discuss their views with specialists and experts from institutions. The workshops have at all times been based on an exchange of expertise rather than western specialists “teaching” techniques. It is the intention (funding being sought) to publish the proceedings of the workshops. In any case the intermediate work has been handed over to the cultural section (library) of the Banco de la República – this has included environmental maps, worksheets from the Spiritual *Chagras* workshops and CEH reports (Exhibits 3, 7, 9). As the ethnic groups still work on an oral tradition system the impact of workshops has had to be investigated – visits by team members to leading communities to get feed back after the leaders have presented results to the communities. Feedback has also been given in the workshops themselves and this has been audio and videotaped. Requests have been made for material to be made available to schools and institutions and we have given copies of material to institutions requesting this as well as leaving the material available in the Banco de la República where it can be read and copied as required. A sample of video highlights from the first year has been sent to the Darwin Initiative (exhibit 22) – selections from this and a few additional excerpts were included in the DEFRA film “The Darwin Initiative” 2002. We have also left films of highlights of workshops in the library of the cultural area of the Banco de la República, Leticia. At present we are working on a manual of exchange of techniques of plant propagation – Dr. Jan Dick. This is being put together in paper and CD form (Exhibits 8 & 9 - draft version). We are now presenting the “*Chagras de los Espíritus*” in CD form. We are also putting together the foundation of a manual on indigenous and western techniques of forest management. Dr Jan Dick (CEH) produced a manual on Plant propagation techniques that resulted from the first workshop in Leticia, Nov. 2000 and Dr Philip Mason; CEH is in the process of doing the same in the area of soil fertility based on his March 2001 workshop. These will form the basis for production of the final manual.

We continue to work on a multilingual book of indigenous methods of conservation of the environment.

We have openly encouraged comments and suggestions at all points in the project to date, in order to ensure that the project continues to make a positive impact. The workshops continue to be attended by a diverse group of participants and have a continuing impact of making the opportunity for the indigenous communities to work together with local institutions. At times this has produced some animated discussion between communities, institutions and local organizations. Constructive results have come out of the discussions. We have observed meetings between indigenous leaders and directors of local scientific institutions, which have come about as a direct result of our Darwin workshops.

1. Outputs, Outcomes and Dissemination

Table 3. Project Outputs (According to Standard Output Measures)

Code No.	Quantity (Actual Output)	Predicted Output	Description
4a*	220 (EU = 120 Malaysian = 100)	0	Number of undergraduate students receiving training in UK – Dr. Gray – Strathclyde and Colombia – Leticia workshops.
4b*	1	0	Number of training weeks provided to undergraduate students
4c*	27	0	UK postgraduate students receiving training (Dr. Gray – Strathclyde University)
6A/B *	20	0	2 one day workshop for indigenous families to select leaders and monitors for environmental management workshops “ <i>Chagras de Los Espíritus</i> ” and to prepare leaders for Xavi Hurtado’s theme of bridging cultural beliefs.
6A/B *	20	0	One day workshop for indigenous families – workshop on relating dreams to modern western technologies – making voice recording devices. Bridging between traditional indigenous knowledge and western technology.

6A/B 14A	1 Training workshop held in Leticia for 4 days for 60 participants on methods of preservation and rehabilitation of the Amazon rainforest—around 60% indigenous and rest institutions etc. (Appendix 3). Continuation of indigenous theme of Spiritual <i>Chagras</i> . Dissemination of results of previous workshops and analysis. (see Appendices 3 and 7)	1	1 Training workshop held in Leticia for 3 – 5 days (<= 20 people – indigenous) on Plant Propagation techniques (and forest recuperation).
6A/B	1 Training workshop held in Leticia for 5 days for 180 people – around 60% indigenous and rest institutions etc (including around 60 secondary schoolchildren from Colegio San Juan Bosque) on Methods of preservation and Recuperation of the Amazon Rainforest. . (Appendix 3). Included workshop on traditional versus western medicine, alternative medicine etc. Also included seminar form local specialists on soil fertility, agroforestry, and traditional indigenous methods.	1	Training workshops held in Leticia for 3 – 5 days including 3 days phytochemistry (phytochemistry workshops have been woven into first, second and third year workshops instead of all in 2 nd year workshop). See Appendix 3.
6A/*B	Half day workshop for around 180 people – around 75% indigenous and rest institutions etc	1	Training workshop on Chemistry of Ecosystems – 3 days – one over 3 year period). As this workshop was originally intended for people from solely academic backgrounds but was given to groups of varying backgrounds it was spread over three different workshops over the three years. (See Appendix 3)
6 ^a /*B	Lecture given by Dra Blanca de Corredor as opening part of Exhibition “La Maloca”, Cultural Section of Banco de la República, Leticia.	0	
7*	3 in draft form – presented to the Banco de la República library.	0	Number of training materials produced for use by host country
8	19 weeks spent in Colombia by UK team including workshop in	17	Weeks spent in Colombia by UK team including Ann Mitchell (now living in

	March April 02.17		UK but continuing as research fellow in Universidad de Los Andes).
13A Δ	Indigenous species collection commenced in form of photographic and identification from indigenous point of view – on-going for duration of project	As description	Species collection established at the Universidad de Los Andes
14a	2 -	1	Number of conferences/seminars/workshops organised to present/disseminate findings from Darwin project work in host country
14B	One workshop (1 day) with around 15 people (including project team) organised in Strathclyde University to perform activities as under description. The results of this activity were combined with visits to communities in Leticia as well as in the two one-week workshops held in Leticia and the Maloca at Km 6.	As under description	Workshop held to work on the results of the first year and to discuss forthcoming work (investigation team plus university researchers and staff directly involved in project) – ca 20 people for three days
22Δ	Four demonstration plots set up but not identical to that “predicted”, mainly for reasons of security. Two plots were set up partly by project team with local indigenas and colonists: 1. Team members together with the Nejeteye family, (Miraña Bora) set up a demonstration <i>chagra</i> in Barrio Costa Rica, Leticia to look at traditional techniques adapted to a town location (Photo 1, page 11). 2. Hugo Camacho and family set up a plot to look at the techniques for reforestation purposes (Km 14, Leticia) and the UMATA have also set up areas to compare techniques. They have tried the propagator technique without success due to fungal infection [no need to “cover” plants to <u>maintain</u> humidity as the atmosphere is <u>already</u> high (78%) humidity on a daily basis] – fungi. 3. Augusto	2	Two permanent plots established to compare planting techniques

	<p>Falcon together with his community (Tikuna – Macedonia <i>Resguardo</i>) have set up plots to compare techniques acquired in the workshops with those traditionally used. 4. Two members of the Km 6 Community including Carmelita Miraña Bora’s nephew have set up plots comparing techniques. The team have had problems in actually observing and documenting the latter plots due to the security situation. However are very encouraged by the fact that <u>they</u> have been testing and comparing methods demonstrated in workshops.</p>		
15b*	2 - publicity by Banco de la Republica	0	Number of local press releases or publicity articles in host country(s)
19c*	2 – publicity by Banco de la República and Radio Ondas - Amazonas for each workshop	0	Number of local radio interviews/features in host country(s)

*-extra output

Δ-modified output

2. Project Expenditure

Table 4: Project expenditure during the reporting period

Item	Budget	Expenditure ¹
Salaries:		
Principal researchers(2)		
Salary Project		
Assistant/Conservation		
Workshop		
Indigenous Specialists		
CEH Specialists(2)		
Office Administration Costs		
Equipment		
Photography, snakebite serum etc		
Seminar costs		
Travel and subsistence		
Printing		
Stationary/Phonecalls etc.		
Total	£53,880.00	£62,907.00

Funding continued to be short for the workshops due to the numbers involved and the distances that the leaders of indigenous communities travelled to participate. We could not turn away any of those wishing to attend. These workshops basically could not have been operated without the institutional help involved. The following table gives an idea of the enormous support given and this in turn reflects on the interest in the workshops. £600.00 was brought forward from the final year budget to second year to buy equipment for video editing and to help cover the extra costs involved with the seminars. It is to be noted that the above table includes costs up until end of April 2002 due to the workshop and field trip activity being in March/April this year.

Table 5: Additional Funding and contribution “in Kind” for Year 2001-2002

Banco de la República – rental for rooms, lending of secretarial and administration staff time, help for accommodation and food for indigenous participants coming from river communities	
Alcaldía Leticia – accommodation indígenas, opening of April 2002 workshop	
Gobernación – accommodation indígenas,	
C.U.S. (Comando Unificado del Sur) Military lending of boat and outboard motor for transport of indígenas to workshop	
British Council/DIFID – Bogotá- organised	

¹ We covered extra expenditure ourselves out of salaries

and paid visa for Blanca de Corredor's visit in March/April 2001	
University of St. Andrews – lending of space for conference for Blanca de Corredor, Dr. Mario Aguilar – conference in Strathclyde Seminar April 11 th 2001	
CORPOAMAZONIA – conference within workshop /seminar	
SINCHI – 3 conferences within workshop/seminars	
ICA – conference within workshop	
Dr. Carlos Gutierrez - conference within workshop	
Dr. German Benitez – conference within workshop	
Dr. Nixon Cueva Marquez IES-CINOC – conference within workshop	
Elvis Cueva (Guide) and José lent boat, motor and their time etc. for river expeditions to visit chagras	
Elvis Cueva (Guide) and José lent boat, motor and their time etc. to transport indigenous leaders from remote river communities for river expeditions to visit chagras	
Policia Nacional: Tourist Police, Environmental Police and National Police accompanied us during all workshops in and outwith Leticia – participating in and helping with the workshops and providing additional security	Difficult to put monetary value on this. Very valuable for the team and for on-going security and success of project.
Indigenous people – each participant gave up a week's work to participate in each of the two workshops. The Nuevo Milenio group at Maloca Km 6 offered their Maloca for two days, we held a practical workshop in their chagras and they provided meals.	Difficult to put monetary value on this. Very valuable for the team and for successful continuation of project.
Dr. Xavi Hurtado paid for his own flight from Spain and gave his time for workshops	
Project team	Supplemented per diems where necessary, especially in the field. The key project members contribute a lot of extra time to the project.
Translations by project team and Mairi Mitchell	

Monitoring, Evaluation and Lessons

The project team constantly directly monitors the progress of the project. Due to the security problems in Colombia some of the physical outputs of the project continue to prove difficult (discussed in detail under section 4, progress of project – first year report). On the positive side, this has led to the team venturing across the contiguous borders with Colombia – to Brazil and Peru which has led to fruitful collaboration with indigenous and institutional communities in these counties giving the project an international slant. Additional monitoring is built into the project by the visits of CEH personnel who report to us on visits (CEH report for November workshop – Exhibit 8). Written material has been produced by the workshop participants and this is being processed for continued revision by workshop participants for the third year (e.g. By presenting video diaries of previous workshops for people some of whom are coming to the workshop for the first time and to monitor progress). This is a form of monitoring outputs by the workshop participants and is especially important for the indigenous participants who have an oral tradition. The written and oral output of both the workshops has been a visible success. During the second year of the project communities were visited informally (Jul 2001, Sep 2001, Nov 2001, Jan 2002, April 2002 with the view of monitoring feedback from the workshops, checking that community representatives have been bringing back the workshop experience to the communities in their rituals and multiplying the information. This part of the work is being led by Blanca de Corredor who has the expertise in this work. Comments, criticisms and observations, which are made as part of the workshops and the follow up (video taped) are/will be taken into account for future plans. The final workshop in the series was planned for October 2002 and for this workshop leaders have been selected who have emerged from previous workshops. Suggestions have been built into the final workshop. As stated in the first year report, selecting workshop leaders/monitors from the indigenous section is proving to be useful for us to monitor our progress.

Photography, filming and tape recording continue to prove to be an essential tool to record all outputs of the workshops and fieldwork. This is especially pertinent to this project as it is aimed at the indigenous people who do not have a written tradition. As the project is built on an exchange basis directly with indigenous people as well as the local institutions, we are constantly learning from these experiences and developing our methods. Feedback on the workshops has also come back via the cultural section of the Banco de la República and it has been positive. Proof of this is was that they are in full agreement to host the next workshop in October 2002 and in fact are looking for ways to continue the workshops.

10. Signatures of UK leaders

D. A.I. Gray

University of Strathclyde

Dr. A.M. Mitchell

**University of Strathclyde
Universidad de Los Andes**

Signed on behalf of complete project team (see front page of this report)

Appendices

- Appendix 1 Maps
- Appendix 2 Research
- Appendix 3 Colombian Workshops
- Appendix 4 UK Seminars
- Appendix 5 Contact with other Institutions
- Appendix 6 summary outputs
- Appendix 7 Published Material
- Appendix 8 Colegio Selva Alegre Exchange
- Appendix 9 Acknowledgements