

Darwin Initiative for the Survival of Species

Final Report

1. Darwin Project Information

Project Reference No.	162/12/016
Project title	Indigenous Methods to Sustainably Manage Riverine Plantations, Amazon Region
Country	Colombia, Brazil, Peru
UK Contractor	University of Strathclyde, Glasgow
Partner Organisation (s)	Blanca de Corredor, Universidad Nacional, Asociación para la Investigación Científica Sociocultural y Ecológica - AICSE
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Project website	
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2. Project Background/Rationale

2.1 Introduction

The region of Amazonia and Orinoquia comprises more than half of the country of Colombia and both of these systems feed into the larger Amazon floodplain and its wealth of biodiversity. These flooded forest regions are the birthplace for many species that distribute themselves in the greater Amazon delta. The Colombian government has been concerned for many years about the management of this area and in 1979 commissioned the project “Proyecto Radagrametrico del Amazonas”. This project evaluated the resources of the Colombian Amazonia and its appropriate management (*La Amazonia Colombiana y sus recursos*, 1979) but very obviously from a “Western” point of view. That project did not take cognisance of indigenous methods of land management and policy (e.g. Arts 8, 10 & 11, CBD).

Colombia, Peru and Brazil collectively retain some of the greatest biodiversity in the world today, much of which is concentrated in the Amazon region. The relatively recent over-exploitation of the Amazon Floodplain Forest by settlers or colonists is leading to alarmingly rapid losses of biodiversity and fertile arable land. Indigenous members of the Amazon forest communities have sustainably cultivated and managed their environment for millennia. Much of the deforestation and resultant erosion, with loss of natural habitats for fauna, has largely been caused by inappropriate land use.

Indiscriminate burning, using the cleared land for planting single-species food crops such as soya and maize or planting exotic grasses for animal grazing (e.g. Of exotic water buffalo imported from Africa and Asia) which can 'sterilise' the fragile ecosystem. Indigenous groups who still follow their traditions use the nutrient-rich white water riverbanks (*várzea*) for multi (mixed)-species plantations (see Exhibits XVII, XVIII & XIX) or *chagras*¹. The preparation process for river plantations does not involve burning the vegetation but conservation of areas vital to the survival of other species such as turtles/tortoises, other reptiles (eg. caiman alligators), birds and other fauna like *capybara*, *danta* and *boruga* that serve as natural food sources for river communities. The indigenous *sabedores* (see glossary Appendix XXVIII and definitions Appendix XXVII) respect for these ecosystems is due to their beliefs, which classify the *várzea* and forest as plantations or *chagras* of the spirits. Our project is based around the indigenous belief that *chagras* or plantations can be human and/or spiritual spaces. Either way the plantations/*chagras* include ecological niches associated with the Amazon forest and *várzea* environment.

2.2 Overall Objective

Due to rapidly changing practises of land management the *indigenous sabedores* have expressed concern over degradation of their environment – Amazon forest and *várzea*. Many of the younger members of the indigenous communities are not adopting the traditional practices used by their elders so that long-established management methodology is being lost. The overall objective of the project was to seek through workshops and field trips to combine traditional indigenous knowledge (held by *sabedores*) with local and academic expertise with respect to existing habitats, and to contribute to a work plan for the sustainable management of riverine plantations and concomitant preservation of biodiversity.

2.3 Location of Work

The project is centred in the “*trapezio amazonico*” near the capital of the department of Amazonas, Leticia [lat. 4° S - 5° S and long. 69° W – 72° W] and includes riverine communities (18+) up to Atacuari on the Colombian side of the River Amazonas, *carretera* Leticia – Tarapaca to Km 24, Peruvian communities of Bocana Caballo Cocha, Isla San Juan de Cacao, Sacambu which border Colombia, Tabatinga and surrounding areas, Brazil – see Maps 1 – 4, Appendix VII. Workshop participants came from all parts of Colombia including other parts of the Colombian Amazon forest – Caquetá, Putumayo, Tarapaca, Miriti (See map 3,). Towards the later end of the project the Shuar community, Taisha, Morona, Ecuador and the Universidad Tecnológica de las Americas, Quito, Ecuador were represented in the November 2005 and June 2006 Leticia workshops – (see Map 6,) expanding the project to another South American country.

2.4 Problem Identification

The urgent need for solutions to problems of inappropriate management of the rainforest was identified by members of the communities near Leticia, Amazonas, who participated in the project "Preservation and Rehabilitation of the Colombian

¹ *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. (see glossary)

Rainforest by Indigenous People" (Darwin-funded, 162/9/008). These communities are made up of many different indigenous ethnic groups/tribes (see), colonists and native populations of Leticia, Colombia and neighbouring regions of Peru and Brazil together with key organisations, eg. ACITAM, AZCAITA in Colombia and Brazil – Tabatinga – (FIUPAM) and the Cultural section of the Banco de la República (main government Bank, Colombia). We include some letters of support () as some evidence for demand for the work but in reality the need for the project was identified during the course of the 162/9/008 project workshops. In practical terms, our main partner, BdeC, was the National project coordinator. Without her experience and commitment, the project would not have gone ahead in this form ie. based on indigenous identity and traditional knowledge. BdeC has worked with indigenous *sabedores* in Caquetá Medio for the best part of 30 years and her experience in the field is unique as she has an in-depth knowledge of indigenous cultures and their traditional knowledge.

2.5 Instalment of Project, Agreements, Commitment

At the commencement of the project a one-day meeting/workshop was held with local government – *Alcaldia, Gobernador* or representatives, Consuls from Brazil and Peru in Colombia and Colombian Consul in Tabatinga, Brazil to raise awareness of the project plan. (See). In the case of the partners built up in the Colombian, Brazilian and Peruvian Amazon commitment has been at varying levels – from participation and organisation of workshops (Cultural Area, Banco de la República, ACITAM and other indigenous organisations, *sabedores*, communities themselves), to preparation of educational material (e.g. Comunidad Santa Sofia, Centro Educativo Antonio Nariño-Community Santa Sofia). As the indigenous tradition is oral, most of the agreements were reached as a result of meetings and follow up to workshops. Some of these agreements were put into writing and are included in Appendices,).

3. Project Summary

3.1 Purpose

The project works together with indigenous communities in the Colombian Amazon basin centred in the *trapezio Amazonico*, Colombia and surrounding areas including Brazil and Peru (See Maps 1-5, Appendix) searching for practical solutions to conservation of the tropical forest and várzea. UK expertise² and funding was used to raise awareness of the urgent need to conserve and strengthen recuperation and preservation of traditional indigenous knowledge of sustainable management of the forest and várzea. Early in the project, as a result of the workshops and field visits, it was realised that a fundamental part of this project was the recuperation and strengthening of human identity. This is a key step to conservation of traditional indigenous knowledge of management of the environment. Recuperation and conservation of indigenous knowledge commences with recuperation of language

² UK expertise – Although we were unable to take our UK specialist, Dr. Philip Mason (agroforestry and soil fungi) over, AMM/AIG consulted with Dr. Mason for the first year of the project in the UK. and made a joint presentation (delivered by AIG/AMM) to the Leticia Workshop of examples of degradation of riverbanks/forest environments especially in the UK referring to the problems of invasion of alien species, and discussion of possible solutions (See Exhibit XIX). It is to be noted that UK academics AMM/AIG are specialists in Phytochemistry and Microbiology but more importantly, for this work, have many years experience in working with indigenous *sabedores*. The latter is a vital component for full comprehension of indigenous culture, thinking and understanding the depth of expertise and science which traditional indigenous knowledge holds.

(daily and ritual). This is recognised by the CBD and recently in August 2006, day of the world's indigenous peoples Dr. Ahmed Djoghlaif, said the following in a press release: "Indigenous peoples are stewards of the Earth's biological diversity and their diverse cultures and languages are the pillars of humanity's cultural diversity. Losing linguistic and cultural diversity has been directly linked to losing biological diversity".

3.2 Outputs

Through workshops, and joint investigation, and production of educational material, the indigenous elders and sabedores, institutions and communities studied and promoted methods of sustainable management of the Amazon forest and várzea including riverine *chagras* on the periodically flooded riverbanks in the Amazon region, on the Colombia with Peru and Brazil. Our study also sought to compare traditional indigenous methods for management of low, mid and high riverine *chagras* (*chagras de vega*) with forest *chagras*. The team (from Colombian and British institutions) worked together with the indigenous communities and organisations of Colombia and contiguous Amazonian countries (Peru and Brazil), to study land use for cultivation of edible, medicinal, and ritual plants. A main component of this project was a series of open workshops in the Cultural area of the Banco de la República, which brought together key personnel (indigenous communities, institutions, government, and private sector) to identify and address problems affecting riverine *chagras*. As mentioned previously, the workshops identified the problem of loss of identity, language and traditional knowledge as being a key component to loss of traditional indigenous methodology of sustainable management of the forest and várzea. These workshops were run by the project team, Sabedores-Sabedoras, AICSE together with the Government sponsored Banco de la República and the Colombian indigenous organisation Asociación de Cabildos Indígenas del Trapecio Amazónico (ACITAM), giving gradually more responsibility to ACITAM and other indigenous organisations and communities in the coordination and organisation as the project progressed (see Workshop Programmes Exhibits VII to XI) until they began to use this methodology for running their own workshops. Participation in the workshops was diverse – bringing together all age groups, many different communities and ethnic groups, NGOs and government organisations and researchers (See pages 7-10 Project Body, workshop programmes Exhibits VII to XI, workshop participation –and ethnic origins involved).

One of the main outputs was awareness of the importance of preservation of the riverine biodiversity, the consequences of not doing so and cohesion of communities, ethnias, organizations and frontier communities. Long-term objectives (extending beyond the completion of this project) are conservation of biodiversity, improving standard of living for riverine communities as well as maintaining viable habitats for indigenous fauna. Work is in place by some local organisations (ACITAM – *Planes Integrales de Vida* PIV – See) and community projects on reforestation, medicinal plant and rehabilitation plots, and education (see Appendices).

On a practical level in the Community of Santa Sofia, the workshops and field research formed the foundation for the production of the educational book and film

“*El Brazo de la Sirena*” (See exhibits XIV & XV) – “*The Arm³ of the Mermaid*” which is based on community field work on the Island of Sogamosa and in *Resguardo Santa Sofía*. This work focused on traditional methods of management of the várzea taking into account the indigenous traditions and mythology⁴. The elders’ first priority was to compose a song – to be built into their oral history – a traditional and effective way of transmitting knowledge and building this into their oral history⁵. The resultant book was produced in Spanish and this is now being translated into Tikuna with the aim of producing this work in other indigenous languages as well. The accompanying DVD was shown in the November 2005 workshop and copies produced for institutions/schools (who had DVD/Video/Monitors). The video/DVD output was particularly appreciated by the indigenous participants, as many of them manage an oral tradition. All outputs including video and written transcriptions of the workshops have been deposited in the government library of the Banco de la República, Área Cultural, Leticia, ACITAM-Leticia and FIUPAM – Tabatinga, Brazil. Additionally the book “*El Brazo de la Sirena*” was distributed to workshop participants, and local and national schools, organisations and communities.
(See - Logical framework to see outputs of project)

3.3 Design of Workshops and Outputs – Cultural Context

We began from a standpoint that the indigenous *sabedores* have an in-depth knowledge of management of the forest and the várzea. This conclusion has been drawn by years of first-hand participative observation by main researchers – BdeC, AMM, AAC and AIG and this is recognised by the CBD⁶. The *sabedores* also possess the ability to adapt their knowledge and experience of management of biodiversity of the forest and várzea to changing environmental conditions.. However, the knowledge which the *sabedores* possess is totally integral and all-encompassing – not segmented (see for comparison of indigenous and academic knowledge) and it is woven into their ritual history and mythology. We have taken the approach in this project to respect the traditional indigenous knowledge (CBD, Article 8j) held by the *sabedores* (as), to study and support the communities in conservation of their forest and várzea. This approach is reflected in the design of workshops and educational material. One important finding of the workshops and field visits was the identification of the fact that there remain very few *sabedores* who still manage their traditional knowledge principally due to loss of identity and language⁷. The *sabedores(as)* regard the forest as a botanical garden of all plants and the várzea is the

³ Arm of the mermaid who is the spiritual “owner” (carer, guardian – see of the várzea islands or branch of the tree which, in the Tikuna *historia* is the beginning of the island – see Exhibits XIV and XV

⁴ the Tikunas believe that the mermaid is the spiritual “owner” of the várzea, bridging the air/water interface

⁵ CBD Publication Brochure “Traditional Knowledge and the Convention on Biological Diversity” <http://www.biodiv.org/doc/publications/8j-brochure-en.pdf>

⁶ CBD Article 8(j) <http://www.biodiv.org/programmes/socio-eco/traditional/default.asp>

⁷ The geographical area of the project includes Amazonian forest communities who have suffered from such atrocities such as the Rubber trade (Casa Arana and Peruvian Rubber Company) in the later 19th Centuries lasting well into the 20th century. Many groups were all but eliminated during this period. Some of the elders involved in the project remember this first hand. An overview of the history of this period be read in Roberto Pineda’s article on the web site of the government library Banco de la República, Bogotá: Ficha bibliográfica: Título: **La casa Arana en el Putumayo. El Caucho y el Proceso Esclavista** Edición original: 2005-05-16; Edición en la biblioteca virtual: 2005-05-16 Publicado: Biblioteca Virtual del Banco de la República Creador: PINEDA CAMACHO, Roberto <http://www.lablaa.org/blaavirtual/revistas/credencial/abril2003/1raro.htm>

basic producer of food sustenance. Good nutrition is necessary to maintain health, which forms part of their traditional preventative medicine. Sustainable management of the forest and várzea is considered by the elders to be addressing not only local needs but global ones, which we would agree with.

3.4 Modifications to Original Project Plan

Due to security considerations, we were neither able to take the specialist Dr. Philip Mason to Colombia nor to stay in communities for more than a few days at a time (normal precautions in Colombia) see. As we had an MTR reasonably early in the project, it was suggested by the monitor that, as the workshops formed a particularly important element of the project, to concentrate on these as well as the production of the educational material. It was also proposed that the workshop that was planned for the UK in 2005 should be held in Leticia. These changes were approved by the Darwin secretariat in November 2005. However, the number of people, ethnic groups, communities, and countries participating in workshops has surpassed expectations and this has generated more coordination/organisation for project personnel as well as generating material to process. Indigenous leaders/organizations and *sabedores* have now contacted us from other parts of the Colombian, Peruvian, Brazilian and Ecuadorian Amazon asking to participate in workshops and present conservation projects. This has extended the geographical area of the project much farther than originally anticipated (as news of our workshops spread). Although this has increased the workload of the project, the team are keen to maintain the momentum of this impact to ensure that it is sustained long-term.

3.5 Relevance to CBD

This project is particularly relevant to Article 8(j) – Traditional Knowledge, Innovations and Practices. Traditional Knowledge is considered by the CBD as a “cross-cutting” issue that affects many aspects of biological diversity. It is accepted by the CBD that indigenous and local communities attach considerable importance to the convention, which they view as an instrument for advancing the recognition, preservation and promotion of their traditional knowledge. Their participation in COP8 was encouraged by the workshops and by Dr. Daniel Munduruku (See letter of invitation). Two leaders from the workshops participated in the COP8 – Manoel Moura who went as part of the intertribal group supported by Brazil and the workshop leaders selected Isaías Roman as the most qualified *sabedor* to attend. BdeC and AMM presented the project in the Darwin Initiative and their own project side-events together with Isaías Román and Manoel Moura. One important point emphasised by Don Manoel Moura and FIUPAM was that the CBD does not distinguish between types of traditional indigenous knowledge and that the practical knowledge held by local people on management of biodiversity is quite different from that held by *sabedores* which is much more profound (see definitions of *sabedores*).

The approach of this project is in line with the ecosystem approach (See Glossary), which recognizes that humans, with their cultural diversity, are an integral part of ecosystems (CBD decisions). The fact that the project is working with human identity as a key point commencing with language is also in line with the CBD and one of the indicators for the 2010 biodiversity target is the number of indigenous languages held.

The project contributes to articles (also summarised in table Appendix I):

7 (Workshops) 20%,

8 (c), (d) (Workshops), (f) (Rehabilitation of degraded areas – Santa Sofia, Macedonia resguardos(i) protection of land uses, identity – whole project(j) whole project, workshops, educational outputs (l) 30%,

10 protect sustainable customary uses – all communities, workshops, support local populations to implement remedial actions – rehabilitation/reforestation of area in Sta Sofia, educational material (traditional indigenous knowledge) 15%

12 Research and Training - Promote research contribution to the conservation and sustainable use of biological diversity in developing countries – in this case promoting research and action using traditional indigenous methods *in situ* by the sabedores and communities themselves including community investigation as preparation of educational material – Santa Sofia – for more longstanding legacy.10%

13 Public education and awareness. Promote understanding of importance of measures to conserve biological diversity - workshops and production of educational material. Cooperate with other states and organisations in developing awareness programmes – eg. With ACITAM, FIUPAM & INBRAPI Brazil, Selva Tamia Ecuador.15%

17. Exchange of Information - Exchange of research information, educational outputs etc. in workshops. All outputs are left with key local organisations that distribute them to communities and have open access: public library – Área Cultural, Banco de la República, ACITAM, FIUPAM, Sta Sofia and other community schools etc.

The CBD 1992, especially articles 8 & 10 – 18 and the “Declaration of Colombia” emphasises (p16, UNEP CoB 92) that “indigenous communities must be fully guaranteed participation and this should be actively encouraged”. This project **has** involved the indigenous people of four Amazonian countries, Colombia (mainly), Brazil, Peru & Ecuador, who represent more than twenty ethnias. The workshops sponsored by the project acted as fora where participants were encouraged to present their ideas in their own language. Many of these people have played, and will continue to play, important roles in the processes that this project has initiated.

3.6 Achievement of Objectives

The project has been successful in meeting its general purpose which was: To work together with indigenous specialists, institutions and communities to investigate and promote methods of sustainable management of riverine plantations on periodically flooded banks of the River Amazonas and tributaries - frontier with Brazil and Peru and to produce educational packages to help conserve biodiversity and maintain viable habitats for indigenous fauna. In order to achieve the purpose, the project had to look at the foundation of indigenous traditional knowledge - indigenous identity as this is essential to recuperation of traditional knowledge of management of the forest and várzea. Due to high indigenous interest – especially in recuperation of identity – this attracted a more diverse and larger numbers of participants than planned. This opened out the project and impact to a much wider audience but at the same time increased pressure on funding and project personnel’s time. Our project field visits and research were restricted by security considerations, river conditions, droughts of 2004 and 2005, and excess flooding in winter periods. Nevertheless, the project was able to produce the educational material planned and in the form decided to be most appropriate for indigenous personnel. This material required much more work in the

area of translation and cultural interpretation than planned. Also, the project has collected an enormous amount of material from workshops and research in the field and in Bogotá with *sabedores*. This material is complex and also requires time and careful editing, translation, cultural interpretation/checking with *sabedores* – and this is still on-going. Significant additional accomplishments are the formation of Santa Sofia Medicinal Plant gardens (see) and the setting up of the parallel project “exchange of Traditional and western medicine ()).

Even though PAM was not able to visit Colombia we (AMM, AIG) delivered information in workshop comparing “western”/global problems in environment e.g. Degradation of rivers with possible solutions, introduction of alien plant species such as rhododendrons and invasion of alien species such as Chinese mitten crabs in the River Thames and Bullhead fish to Scottish waters – see Exhibit XIX. This had a huge impact on the workshops and gave them actual examples of biodiversity problems internationally. This resulted to be a successful method of stimulating the workshop participants to look to their own environment without imposing our views on the indigenous specialists or telling them what they should do. It meant that they could compare examples of what was happening in other parts of the world to what is happening in the Amazon forest and várzea, also we brought into the workshop the significance to the rest of the world of the Amazon forest and its environment and the problems faced environmentally elsewhere – global perspective. The indigenous specialists and organisations, in fact requested that we continue with this form of presentation, which we did throughout the project using lecture and film presentations (eg. Exhibits XVIII and XIX).

4. Scientific, Training, and Technical Assessment

4.1 Research

The research included in this project has been led by B de C, AMM, AAC and AIG and includes as co investigators *sabedores* from many different ethnic groups who we have built up contacts over many years (25+). Without these contacts in place it would not have been possible for this project to achieve the cohesion and outputs, which it did. names many of the *sabedores* who have worked with us in the workshops and the field and acknowledges *sabedores* who have worked with and taught us in the past. It is necessary to have in-depth experience of working with ethnic groups to select out who is an actual indigenous *sabedor* and who is not. There is a vast gap between the indigenous person or the *campesino*/farmer who may have practical knowledge of management of the environment and a *sabedor* (see for definitions of *sabedor*). We are able identify *sabedores* because we (BdeC, AAC, AMM and AIG) have known and studied with these families for many years – we have worked with them in their rituals and been to the forest with them in Caquetá and Amazonas and we know how the *sabedores* have been formed. Additionally, the *sabedores* involved in the project present in the workshops and this is a form of peer review, because they are evaluated by the other *sabedores* from many ethnic groups in the workshop and post-workshop meetings in communities. As the traditional training of *sabedores* is rigorous, so is the evaluation of other *sabedores* and academics.

4.2 Overview of Methodology used for Research, Workshops and Preparation of Educational Material

4.2.a Research Methodology

The methodology used is tried and tested by this project team and involves working together with the *sabedores*, observing and participating in rituals, learning about the indigenous spiritual world with special reference to forest and várzea, listening to the sacred *historia* and respective myths and stories, documenting traditional indigenous ways of management of the várzea, plants grown, ecosystems. In daily life the oral tradition transform to materialisation and implementation of management of the forest and várzea. Both the sacred and practical elements are documented by tape recording, photography and video depending on circumstances. By doing this together with the *sabedores*, this serves to motivate the communities to value their traditions and preserve it themselves but at the same time aids the academic investigator comprehend the value of the *sabedores* knowledge of management of biodiversity. As we work with *sabedores* from many different ethnic groups, collection of the material is complex and it has been extremely time consuming to sort through material collected – due to volume, language, culture etc. This can beg the question, “why collect so much material?” We also always take the opportunity to document everything we can because one never knows when one can repeat the experience with a *sabedor*. The majority of the *sabedores* are very elderly, live in remote locations which are difficult to get to. We also have to take into consideration that, before the *sabedor* can take the researcher to look at habitats associated with the forest he/she has to carry out the appropriate ritual prior to and during the outing – e.g. ask permission from spiritual “owners” of the forest and *chagras* (see Exhibit XVII *Chagras de Los Espíritus*). The *sabedores* believe that there is always an appropriate moment to do something e.g. Visit a *chagra*, an ecosystem etc. – the academic investigator has to be guided by the *sabedor* in this (and the investigator should respect this as he/she may not be able to take you to some areas because of his beliefs and respect for the environment). describes the project methodology in a little more detail and and Exhibit XX includes some examples of our work Exhibit XX includes an outline of material collected and work done prior to and during the project. We are collating this work for publication in book form naming plants together with the *sabedores* who have provided their expertise. This material is being written in Spanish language and will be translated into English with cultural bridging in agreement with our South American partners. All material is being checked by the *sabedores* together with the team.

Although it was planned, and it would have been useful to collect herbarium samples – we do not consider it to be essential for this type of project to obtain its purpose. We have as part of our team an elder Oscar Roman Enokai who guided Richard Schultes in his botanical work in Araracuara. Oscar guided Richard Evans Schultes to the plants, and at the same time learned the Latin binomial names from him. He and his son Isaías – a *sabedor* who has accompanied us in all the workshops in this project are ethnobotanists in the true sense of the word. Both SINCHI and The Universidad Nacional have herbariums and facilities to identify the local plants. Our project was interested in stimulating respect, recuperation and conservation of indigenous traditional knowledge for sustainable management of the forest and várzea. The

indigenous *sabedores* have their own systems of plant identification, which are of far more use to them than our Latin binomial identification.

4.2.b Workshop and Production of Educational Material Methodology

The methodology used in this project involves working with local people in-situ and primarily looking at the problems in hand from their stand point and vision. This contrasts with most “scientific” methodologies where a specialist or expert comes to teach locals – our method is very much an exchange with the purpose of stimulating the local indigenous population to value, recuperate and preserve their traditional knowledge of management of várzea and forest. To do this, it is absolutely necessary that academics – whether they are Nationals or Internationals have the openness of mind and practical field experience of working together as equals with the indigenous *sabedores*. For example, the title of this project is the study of sustainable management of várzea plantations. Converted into local language this is the study of *chagras*. However, the indigenous concept of *chagras* is that there are the ones planted by humans for human use (this part comprehensible for us as academics) but there are also the spiritual *chagras* which according to cultural belief have been planted by spirits, God etc, depending on the local belief which include *chagras* for animals – and ecological niches such as *cananguchales*, *caranales*, beaches, etc. The fieldwork done by the actual team themselves has been done in short bursts (due to factors such as security, levels of river, climate, cost). Fieldwork includes *sabedores* as co-investigators and the most striking example of this is the work done in Santa Sofía, which studied the formation of an island from beginning to sustainable use. This work united a community school (Centro Educativo Antonio Nariño) with *sabedores*, students and teachers to carry out joint investigation with Prof. AAC. The conclusion of this investigation, which included the spiritual and material results, was put together AAC and the local teachers, especially the director of the school into the book and DVD “*El Brazo de la Sirena*” (See Exhibit XV).

4.3 Peer Review of Project Outputs

For peer review, this has proved to be difficult on the “western” academic side. Wee have placed great importance on peer review from the *sabedores* – they are the ones who possess integral knowledge of management of forest and várzea and the outputs of the project are aimed at recuperation and preservation of **their** knowledge.

4.4 Workshop Achievements

From the previous Darwin project, contacts had already been built up and included organisations (NGO and GOs), communities (including multi-ethnic populations) and *sabedores*. Through this process leaders had been identified for the present project workshops. The workshop methodology used in the current project differed from that of our previous 162/9/008 project in which they were centred much more on “academic specialists” giving input and capacity building. The present project workshops were centred around the knowledge held by the elders on sustainable management of the várzea and forest. As explained above this had to take account of the integral education held by *sabedores* (outlines and discusses differences between academic and indigenous education). Key elders, organisations and institutions from 3 countries (Colombia, Brazil and Peru) had been selected and these were extended as the project progressed to other parts of Colombia, Peru and Brazil and ultimately to

Ecuador. The intention from the start of this project was to give the message that it project belonged to the *sabedores* and they had the freedom to present their views and concerns within the limits of the project topic as seen by them. Which in the beginning, this was very much focussed on traditional medicine. However, a major component of traditional medicine is its preventative medicine and this includes (as in our medicine) nutrition. The *chagras* or plantations and their sustainable use is a major component of preventative medicine. From the elders point of view, it is impossible to separate nutrition from preventative medicine and the elders took this as the starting point. We were fortunate to have on board not only ourselves (AIG and AMM) as pharmacists (with specialisation in phytochemistry and microbiology) but also a team of medical doctors – one of them with the additional specialisation of alternative medicine. Our first workshop also included Dr. Lucy Hoyas a nutritionist who has specialised regional food of Amazonia. Additionally, Nilo Tamani, nurse from Santa Sofia was able to give advice on the nutritional and medicinal use of plants from the *várzea*. The *resguardos* have only very basic access to western medicine and often have to rely on their traditional medicine, which is held now by very few elders (and often disapproved of by Evangelist church groups).

The workshops attracted diverse ethnic groups and resulted in cohesion of communities and organisations concluding with the formation of community groups who are continuing on with practical methods of recuperation, preservation of traditional knowledge of management of forest and *várzea*. The main workshops brought together experiences of environmental problems faced by other parts of the world, bringing an awareness to the participants of the workshops. The five main workshops were held in the Colombian government organisation – Área Cultural of the Banco de la República⁸. That in itself gave the workshops a high profile in the region – nationally and internationally (three frontiers). This spread awareness of the need to look to the indigenous *sabedores* for ways to sustainably manage the *várzea* and forest in their plantations or *chagras*. The workshops were open to everyone who wished to attend and individual invitations were sent to all key personnel (see for list of invitations). Certificates of attendance (See Appendix X) were given to participants who attended the five days of the workshops – these participants are listed but many others attended for shorter periods – due to work and other commitments. Results of work done in communities were presented and analysed discussed in these workshops. Ways of moving forward with the recuperation of traditional knowledge were discussed. Overwhelmingly the decision reached by the workshops was that in order to tackle recuperation and preservation of traditional knowledge of the forest and *várzea* that they had to commence with human identity recuperation, commencing with language. In the PowerPoint outline (see Exhibit XX) of on-going investigation () some photos of dance are included – this represents progress made in recuperation of identity. It should be explained here that the identity of the indigenous groups in this area has been suppressed by many years of domination by different entities – e.g. the history of the Casa Arana (Pineda, Roberto, 2000⁹; UK Foreign Office, 1912¹⁰)

⁸ <http://www.banrep.gov.co/>

⁹ **Pineda, Roberto** “Holocausto en el Amazonas – Una Historia social de la Casa Arana” 2000 Roberto Pineda. Published by Quebecor Impreandes S.A. Bogotá, Colombia

¹⁰ **UK Foreign Office** The Blue Book. Correspondence respecting the treatment of British Colonial subjects and native Indians employed in the collection of rubber in the Putumayo District. Presented to both houses of Parliament by command of His Majesty. Miscellaneous, No. 8, London, 1912.

religious groups etc. It has not therefore been the custom to bring together a wide range of communities, institutions, organisations, academics to a public space where indigenous *sabedores*, leaders, community members can stand up and speak (in their **own** language with Spanish translation) on a par with these other entities and individuals

For the workshops to function, preparation was made for them in the communities well before the event – in the form of preparation of materials, rituals. They held meetings in the community and basically carried out their own pre-workshops. These were private events, and have not been included in the output table in. Workshops were also followed up in the communities, the selected participants from each community disseminating the results – as in oral tradition for community discussion and commencement of preparation for the next event. The five large workshops in Área Cultural, Banco de la República were open, however, the project only supported transport and basic subsistence for the community leader plus selected *sabedores* from each community. The selection was made by the communities and ACITAM.

4.5 Capacity Building

4.5.1 Capacity Building of Leaders, Sabedores, Communities

The whole process and progression of the workshops during the present and past project built the capacity of indigenous leaders and *sabedores*. The current project placed great emphasis on the *sabedores* and leaders themselves taking on the responsibility of organisation of workshops, communities, subject material etc. We also with their agreement brought in *sabedores* who still possess and manage in-depth traditional knowledge such as the Uitoto *sabedores* and other selected *sabedores* such as Juan Cobos Rios from Peru/Brazil. These *sabedores*, were an example to the workshops and their very presence, and series of teachings, encouraged many of the leaders and *sabedores* to look to their recuperation of their own traditional knowledge of management of the environment commencing with identity.

The project gave support to two mature indigenous leaders to continue their secondary schooling – one was Augusto Falcón Pérez – Cocama leader – Secretary of Culture, ACITAM. The other was Nepomuceno Castillo who was president of ACITAM at the beginning of the project but then was elected councillor in the local Government. These students were selected for their dedication in the first project contributing to workshops and conservation of the environment as well as their strong maturity and community involvement. The team evaluated their background together with the Rector of the INEM School. Once enrolled, the team monitored progress of the students with the school at least six monthly (see for some of report cards). We are pleased to say that both students to date have excelled, despite their having leadership duties in ACITAM and government. Both pupils passed two grades per year and Nepomuceno (who is now a grandfather!) graduated from the school top of his class. He just missed getting a scholarship to University but is competing for one from local government. Augusto Falcón, is due to graduate next year and the team is helping him to finish his schooling – personal funding. This is already strengthening their position in their leadership roles. We expect that they will follow up their studies at university.

So much attention has been drawn by our methodology (roots of identity) for running of these workshops that the Brazilian indigenous federations have copied the complete filming of the workshops to take on the methodology for themselves.

Doña Carmen del Aguila and Don Manuel Chota and the other elders and leaders involved in this part of the project are also teaching local children and this has been “spun out” to other resguardos e.g. Atacuari and Macedonia (See Appendices and)

Training has been given in investigation and production of educational material to many participants at Darwin workshops mainly by Prof AAC (work done in Santa Sofia (see) but also Prof. José Ignacio Prieto has given training to the workshop and ACITAM in photography.

4.5.2 Proposal to fund the studies of a librarian and care of recorded material in ACITAM

The project team together with Dr. Carlos Gutierrez asked for funding from the Mayor in 2003 for funding to send two indigenous school graduates to university, with the idea of supporting at least one librarian/record keeper (see). The Mayor promised to do this but unfortunately did not follow through. Knowing this, Dr. Carlos Gutierrez applied to Medellin University for two scholarships for indigenous students subject to passing the University entrance. The University agreed, however the main applicant who had been selected by ACITAM, Idelfonso Bautista, withdrew due to personal reasons. The other applicant failed the entrance exam (which was not “geared” towards indigenous education) and there were no more suitably qualified/interested students. ACITAM has since been given a computer and having had some security problems, have now constructed a separate office area where they keep documents and copies of the outputs of the workshops and other material.

4.5.3 Educational Material

4.5.3.i Selection of Communities

Three communities were selected as possible locations to commence preparation of educational material – Puerto Nariño, Macedonia and Santa Sofia. These communities had expressed a need for this material to be produced as a result of the previous Darwin project 162/9/008. However, they required material which would be of use to indigenous students - especially the young. They noted that materials have been produced in the past by well-meaning institutions but lacked the inclusion of the indigenous knowledge and subtleties of language and culture. Their need was for material centred on indigenous traditional knowledge and designed with the indigenous view at the forefront. Our project has endeavoured to do this and the resulting outputs are materials, which are not conventional from an “academic” point of view. Although we accept this, we also defend it as a useful way forward to recognition, respect and preservation of the traditional indigenous knowledge of the environment and because it was designed together with indigenous sabedores, communities. Because we did not have a precedent to base this on it is a novel approach.

4.5.3.ii Preliminary Work in Comunidad Santa Sofia

Out of the three communities selected as possibilities for the pilot production of educational material, Santa Sofia came forward and they have put their energy and effort into the production. In particular the Director of the Centro Educativo Antonio Nariño, Prof. DBC took on the enormous task of uniting and coordinating elders, teachers and students in their community. This had not been done before in this way and as in any community it can be difficult to work through things in harmony, but Daniel accomplished this. The initial contacts drew up agreements (see) and in fact, due to the preoccupation with recuperation of traditional plants used in their medicine, a workshop was held early in the project (Jan 2004) by elders, the school teacher Blanca Eida del Aguila, AMM and Dr German Benitez (Medical doctor, specialist in alternative medicine) to recuperate knowledge on basic medicinal plants of the várzea and produce a community medicinal plant garden as well as a private school garden put aside for elders to teach schoolchildren. From this piece of work a film was put together “*Huertas Medicinales*” (Formation of Medicinal Plant garden), Comunidad Santa Sofia”, (see Exhibit XVI). This activity helped to unite the community for the preparation of the educational material: “*El Brazo de la Sirena*”.

4.5.3.iii Design, Research and Production of Educational Material “*El Brazo de la Sirena*”, Comunidad Santa Sofia

In July 2004, a mini-workshop was held (see) where the proposed educational material, coordinated by Prof. DBC and ACITAM was discussed publicly. It was agreed in the mini-workshops that Santa Sofia should take on the pilot project. Andrés Corredor then worked with DB to prepare field investigation on methods of management of the várzea but looking at the indigenous point of view as recommended by the Santa Sofia School. The field research was carried out as a community coordinated by AAC and DB in Jan 2005. The elders chose to research the formation of an island and its subsequent management as being the most representative example of sustainable management of várzea plantations or *chagras*. This was initiated from the ritual and spiritual aspect according to their traditions and identity. As the mermaid is the spiritual figure or “owner¹¹” of the várzea islands, the work was entitled “*El Brazo de la Sirena*” or the Arm of the Mermaid. The elders Proposed starting the ritual with the invention of a song for the children of the school. This can be read in the “*El Brazo de la Sirena*” and heard in the corresponding DVD see Exhibits XIV and XV. The material was distributed to communities, schools and institutions in Amazonas as well as to international participants of the workshops. The DVD was distributed to institutions and communities who have access to DVD/monitors. It is intended to stimulate the indigenous young observer to ask questions – not only of his/her schoolteachers but from parents and grandparents. There are many versions of the mythology behind the spiritual figure of the mermaid – this is only one and looks at it from the Tikuna point of view. It is also left to the readers to remember, recuperate their versions and associated knowledge of recuperation, preservation of the forest and várzea. This material was produced in Spanish, however, it is being translated into Tikuna and work is underway on writing

¹¹ “Owner” = *Dueño*. 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.

up the results of a workshop held in Jan 2006 in Santa Sofia looking at the indigenous methodology of education to help future work. This is being collated in Spanish and Tikuna.

The production of the material in Santa Sofia involved capacity building of the teachers in the school. The methodology used was learned in particular by DB – cohesion of community, collection of material, editing etc. DB's expertise is now being sought to help to initiate educational books in Atacuari on recuperation of traditional knowledge starting with the Cocama language.

4.5.3.iv Chagras de los Espíritus “Manual”

The “manual” *Chagras de los Espíritus*” looks at the indigenous traditional knowledge of forest and várzea ecosystems and their sustainable management. It is designed from the indigenous point of view. It is not a “how to” text as we would design it normally but a stimulus especially for the young indigenous population. The sabedores and indigenous population are very exacting in their requirements and this work takes into account, the sabedores traditional beliefs in the spiritual world. Only certain topics can be presented outside the ritual space. To approach and materialise this knowledge it needs suitably qualified personnel, such as AAC who have had many years experience working with *sabedores* of different ethnic groups in Colombia and internationally.

As with the educational material produced by Santa Sofia, the aim of the publication “*Chagras de los Espíritus*” *cartilla* was to produce material, which was digestible and acceptable to the indigenous people, and reflect their traditional beliefs. It is especially aimed at the young. AAC's presentation of the work explains that the work is intended for young people to “ask the questions” – of teachers and elders on their traditional knowledge underlining the importance of this knowledge. As we were aware that we wanted to produce material, which was of use to the indigenous people but taking into account reviewers comments on our educational booklet “*El Brazo de la Sirena*”, we decided that the “manual” should be presented in a form, which takes into account the indigenous world of spiritual “owners” of the environment. Without looking at the roots of these beliefs, management of the environment does not make sense within the indigenous traditional knowledge. From our experience of taking over specialists with little experience of working with *sabedores*, and from our reviewers comments (MTR and otherwise) we realise that bridging the cultures is a very necessary step in this type of project and needs to be given due attention. The book “*Chagras de los Espíritus*” is being distributed widely – locally, nationally and internationally to Spanish speaking countries. We are also planning to translate into English (the English translation provided has been done as quickly as possible by AMM (for the reviewer's benefit) with an introduction designed to bridge the cultures and disciplines so that future projects with indigenous *sabedores* can perhaps benefit from our experience. This will aim at being usefully interactive with *sabedores* and truly respect the experience they hold in their traditional knowledge (as per CBD Art 8j).

Manual of Phytochemistry

A Phytochemistry Manual has been put together for the environmental chemistry and work on medicinal plants presented in the workshops by AIG. The medicinal plants selected are ones, which are known and published worldwide avoiding authorship problems. Any information given by sabedores has been acknowledged with their names (see Exhibit XVIII).

5. Project Impacts

The workshops and educational material produced by the project have drawn a high level of attention from communities and organisations over four South American countries. Evidence for this is the high diversity and numbers of workshop participants (see). The project has been successful in this respect due to the high level of interest in looking at methods of recuperation of identity as a way of recuperation and preservation of traditional methods of preservation and management of biodiversity. This philosophy has had a wide impact bringing in increasingly wider diversity of ethnic groups and institutions who are working with local government to underline the importance of recognising indigenous identity with the corresponding traditional knowledge of management of forest, várzea, river etc as well as traditional indigenous medicine. The evidence for impact can be seen with workshop participation (already mentioned above) and the spin off proposals and projects – e.g. PIV now commenced by ACITAM (see), community project proposals such as in Santa Sofia, Macedonia and Atacuari, and Peru for recuperation of identity commencing with recuperation of language. The methodology of the workshops, especially with respect to recuperation of identity has been copied and spread through the indigenous federations of Brazil by Manoel Moura President of FIUPAM. The president of INBRAPI together with Don Manoel Moura is searching for ways to recuperate the indigenous methods of education combining it with western knowledge in the form of an indigenous university. In Atacuari, Don Rene Morales – President of the elders and member of ACITAM committee held a workshop at their own expense (killing a pig for food) for 40 people for 2 days in August 2006 to commence the plans for recuperation of Cocama identity – uniting elders who still speak Cocama and hold traditional knowledge of management of the environment.

Two medicinal plant plots were set up in Santa Sofia and remain there being continually tended and cared for. In *Resguardo* Macedonia, where they had considerable problems for the first two years of the projects (religious conflicts) they now have recuperated and reforested an area of land around a lake and have planted aquatic medicinal plants – which are also good for feeding the fish. They have commenced plans to section off pools from the main lake to make medicinal¹² fish nurseries (See). In Santa Sofia Mario Gutierrez has reforested an area of high várzea with forest plants in danger of extinction in that area. All of these individuals have presented project proposals for the continuation of this work (see). The educational material “*El Brazo de la Sirena*” has motivated communities to look at the importance of preserving and sustainably managing the várzea lakes and beaches. It is too early to say what the impact of the manual “*Chagras de los Espíritus*” is but a visit from UK/Colombian team members is planned around April 2007 to check on this. Funding is required to continue all these projects, but the people are asking for the

¹² Medicinal Fish nurseries – food including fish are considered part of traditional indigenous preventative medicine. The plants used to feed the fish and also to rehabilitate the deforested area are also used medicinally – ie. Edible and medicinal.

basic requirements needed to achieve these projects. The production of reforestation/medicinal plant plots was not planned and was initiated, as part of this project by the communities involved.

The achievement of the medicinal plant gardens together with interest in the project from the medical team resulted in a move towards local government acceptance of the need to recognise traditional indigenous medicinal knowledge.

Finally, one unexpected impact was that the team were approached in November 2006, by the Departamento Administrativo de Seguridad (Security Administration Department) – Colombia DAS and other security authorities asking when the workshops would continue because the workshops have helped to avoid conflict and improved security due to the fact that we are looking at the problem of recuperation of human identity and care of territory. In their opinion this is due to the fact that in general terms the workshops are addressing recuperation of human identity, culture and territory, this has united the general community.

As a direct result of the project, the government organisation, the Banco de la República and Institutions in Leticia are now aware of the importance of valuing traditional indigenous knowledge and of working together with indigenous people. The project has concentrated on recognition of indigenous traditional knowledge, in-situ conservation and education/capacity building and empowering the people to continue to do this themselves. This is long term work and will need further external input to continue with the important work of recuperation of human identity as a key step to recuperation of biodiversity. The latter concept is well accepted and documented by the CBD. ACITAM has now initiated their project *Planes Integrales de Vida* - PIV which has been motivated and made possible due to our workshops and help capacity building of leaders. Local government support has been requested for this project by ACITAM and it is directly related to *in situ* conservation of biodiversity. The Area Cultural of the Banco de la República have continued to run workshops with indigenous sabedores at the lead (see) giving due importance and emphasis to the importance of conservation and respect of traditional knowledge. The organisation FIUPAM has disseminated the project work through the Amazon communities of Brazil and is looking at ways to include these sabedores in future workshops so that ways of conservation of identity and territory can be disseminated. In Ecuador the Shuar and Achuar communities situated in the Ecuadorian Amazon forest heard about the work being done on recuperation of identity¹³ and are now looking at ways of strengthening their identity through projects. See, which shows the contribution made by different components of the project to the measures for biodiversity conservation defined in the CBD Articles.

The involvement of school teachers, elders, children and young people from the Santa Sofia community in the process of producing the educational material “*El Brazo de la Sirena*” gave this community – in particular the school teachers led by Prof. DBC the capacity to continue their own research and produce their own educational material on preservation and sustainable management of forest and várzea. They are continuing on with AAC to complete the task in different languages – slowly - as the funding is

¹³ By word of mouth – messages brought by Elvis Cueva – Amazon Expedition

not there. Their investigation is centred on preservation of their surroundings – ie. the forest and várzea. They now see the importance of recuperation of identity and language as a key step to preservation of their traditional knowledge and of management of the biodiversity. Prof. DBC continues as the Director of Centro Educativo Antonio Nariño. The two students who we have helped to finish their school studies – Augusto Falcón continues as a leader in ACITAM and heavily involved in the project PIV, also preservation of traditional knowledge of production of artesanías and preservation of resources for making artesanías, Nepomuceno Castillo is a councillor in local government and is dedicated recuperation of human identity and traditional knowledge of management of biodiversity.

The main impact of the project in terms of collaboration to date between UK and local partners is to raise awareness of the importance of indigenous traditional knowledge of management of the Amazon tropical forest and várzea – in UK and host countries. By looking at the problem of indigenous identity it has given confidence to the indigenous communities and organisations to conserve their cultural heritage, knowledge and territory. By doing this, the communities' elders, leaders and organisations are now presenting this to local government. The workshops have united governmental organisations and civil society groups to look at the recuperation of human identity. As mentioned above, this has been recognised by the DAS and other security organisations to be of key importance to peace-keeping and preservation of territory.

In terms of social impact of this project, the principal beneficiaries are the indigenous communities in the main project areas. The workshops, due to their open nature, willingness to treat academic specialists and indigenous sabedores on an equal footing has resulted in cohesion of communities, integration of tribes, and initiation of recuperation of cultural identity. Cultural identity, commencing with recuperation of native languages is essential for recuperation, preservation of traditional indigenous knowledge of management of the environment and biodiversity. This has resulted in communities uniting to recuperate this knowledge. Proof of this is the high attendance in 5 workshops (see), elaboration of community projects such as the medicinal plant gardens in Santa Sofia, educational projects and project proposals – medicinal plant garden/fish nursery in Macedonia (see). The project has directly contributed to strengthening the work of the indigenous organisations especially– ACITAM and FIUPAM. Although it is difficult to measure this impact, the project has directly contributed to the initiation of ACITAM's project "*Planes de Vida*" (see) and their governmental project with SINCHI on *chagra* plantations ("*La Chagra Conocimiento de Vida – Proyecto fortalecerla Diversidad del Cultivo y Productividad de la Chagra para el Mejoramiento de la dieta Alimentaria de las Comunidades Indígenas del Trapecio Amazonico*"). In the case of the traditional medicine output, the project medical team have put into place a project to combine traditional medicine with western medicine and are working to get government recognition of traditional healers. The medical team are now building up their own funding to continue this project. This is an example of Colombian institutions working side by side on an equal footing with indigenous *sabedores*. This has a direct effect on conservation of biodiversity and traditional knowledge of medicinal plants – e.g. Medicinal plant gardens in Santa Sofia (see, Exhibit XVI) and Macedonia (see). Raising awareness of the importance of conservation and preservation of the várzea and forest in general is

an important impact of this project. This is also difficult to put a figure on, but proof of this is again the projects taken on by communities and individuals themselves e.g. Rehabilitation of deforested area in Santa Sofia by Mario Gutierrez (see).

The methodology and design of the sabedores workshops has been disseminated by FIUPAM and the filmed workshops have been distributed for copying by the indigenous federations in Brasilia and Manaus and the need for continuation of workshops which reach out to other Brazilian Amazon communities has been clearly stated in FIUPAM's support letter ().

6. Project Outputs

Project outputs are quantified in the Table in. Of the original planned outputs, we have not produced an annual newsletter, because we have carried out two extra large workshops than originally planned in Leticia and we have been able to present progress of project activities in these workshops. Given that the majority of workshop participants are indigenous people who have an oral tradition, the team have considered this to be more effective than handing out a newsletter. Each workshop was filmed (recorded on film) and DVDs of the full programme have been deposited in the public library of the Cultural Section of the Banco de la República and ACITAM (Leticia). This material can be viewed at any time and copied by anyone requesting copies. If anyone has requested edited parts, these have been given e.g. to Manoel Moura – president of FIUPAM for his recent visit to an international sabedores meeting in Venezuela and to Dr. Daniel Munduruku president of INBRAPI. As mentioned above members of ACITAM are now working with the Universidad Nacional in Leticia producing and editing their own film material. All project outputs were presented to the government library of the cultural area of the Banco de la República for library so they can be accessed by everyone, to ACITAM, to Centro Educativo Puerto Nariño, Santa Sofia and to FIUPAM. We do not yet have a paper ready Journal publication but this is still planned (possibly in Journal of Ethnopharmacology or Brazilian Journal of Pharmacognosy).

Our project has had an unexpected but welcome development. The support of Drs CG (Medical Physician, Universidad de Antioquia) and GB (Medical Physician, Homoeopathist, Universidad Nacional de Colombia) was anticipated for workshops and in exchange of knowledge of western medicine versus traditional indigenous medicine versus other alternative medicine practices such as Homeopathy. However, we did not predict that there would be such a good rapport between the medical doctors, communities and indigenous organisations. Not only have Drs. CG and GB formed part of the project team they have been joined by RA, (Medical Physician, Pathologist, Clínica Santa Fe, Bogotá) forming a complete medical team (see). This added a new and valuable dimension to the project at a very early stage – i.e. the importance of preservation and production of várzea in preventative (e.g. edible and culinary plants used in day-to-day preservation of health) and curative medicine. At the same time the medical team are offering practical health aid (e.g. surgical procedures) to the communities.

Over the project period, this group of medical doctors have already invested a substantial amount of voluntary effort into the project.. They have put together a project proposal for this arm of the work for funding applications. The involvement

of Dr. CG has already led to the Universidad de Antioquia (Medellin) opening its doors to a Tikuna student –Idelfonso Bautista Carihuasari to study librarianship (see) and point 4.5.2 above.

Publications and material which can be publicly accessed are detailed in table .

The information relating to project outputs and outcomes has been disseminated primarily in the large workshops in the Área Cultural of the Banco de la República, Leticia. The primary target audiences are the indigenous communities, organizations, GO's, NGO's, institutions, private sector – see Workshop participation Appendix X. Although the project workshops have not continued after the end of the project, project team are continuing to make community visits and to disseminate project outputs. The project team, ACITAM and Banco de la República are facilitating and sharing in the cost of this at present.

7. Project Expenditure

Table 1, below shows total expenditure during whole project. A breakdown year by year is detailed in. As a result of our MTR, it was agreed by Darwin in Oct/Nov 2004 that we should cancel the proposed visit of Dr. Phil Mason (security reasons) and the workshop planned in the UK and concentrate on the Leticia workshops especially as the workshop numbers were much higher than anticipated in the proposal. We did this and it can be seen that the extra workshop expenditure is reflected in the travel and subsistence budget as well as in the seminar and indigenous salaries. The travel budget was also so high due to our having to hire private river and road transport (taxis) due to security considerations.

Table 1:
Project expenditure during the whole project period Sep 2003 – Aug 2006

Item	Budget	Expenditure	Balance
Rent, rates, heating, overheads etc			
Office costs (e.g. postage, telephone, stationery)			
Travel and subsistence			
Printing			
Conferences, seminars, etc			
Capital items/equipment			
Others (film/tapes/devel etc)			
Audit			
Salaries:			
Blanca de Corredor			

Ann Mitchell			
Indigenous leaders/elders			
Consultant: Dr. Phil Mason			
Andres Corredor/assistants			
Secretaries /Translators/others			
TOTAL			

8. Project Operation and Partnerships

8.1 Main Partners

A list of main partners can be seen at the beginning of this report. Workshop participants can be seen in lists of workshop participants in.

The main partners who worked on this project are as follows: BdeC - AICSE/U. Nacional, AAC U. Nacional, EBV, Uitoto *Sabedor*, Professor linguist U. Nacional, Area Cultural – Banco de la República Leticia, ACITAM, AZCAITA, ASOINTAM, Colombia, FIUPAM Brazil, INBRAPI Brazil. Sabedores and community leaders as described in workshop programmes (and Exhibits VII - XI) – in first workshop – final workshop. Workshop participation included Governmental and Non-Governmental organisations and representatives from private sector, as well as local community groups – see. Latterly partnerships extended to Ecuador (see).

The partnerships were as planned extending even further than expected in the case of communities such as Atacuari and Tarapaca - Colombia, Shuar Ecuador, INBRAPI Brazil – Dr. Munduruku, Brazilian universities also attended workshops (unplanned). Professor Luis Huaraca, UNITA, Quito – Fundación Selva Tamia has also participated in our two ultimate workshops. However, one planned partnership with IES-CINOC did not work out. This was partly due to security issues in communities but more importantly especially considering this type of work, - academic specialists unwilling to conform to the project philosophy of working with sabedores on an equal footing with academia.

8.2 Most active partners:-

B de C, AAC and EB all have in-depth understanding of indigenous culture and the extent of depth of indigenous knowledge. This is a basic necessity for a successful outcome when working on joint projects with indigenous leaders, *sabedores* and organisations. Our methodology is to work directly with indigenous *sabedores*, community leaders and leading indigenous organisations who connect directly into local and National Government. The local Colombian organisation ACITAM was active and continues to be active in raising awareness of importance and

implementing plans of recuperation and conservation of traditional knowledge of management of environment and public health. As documented elsewhere in this report, our project workshops with their methodology formed part of the process of the initiation of the project *Planes Integral de Vida* PIV (See). The project has helped in capacity building of ACITAM ex president and current local councillor Nepomuceno Castillo who has just graduated from secondary school and is applying to go to University. He continues to be closely involved in project objectives – preservation and sustainable management of forest and várzea and the continuation – preservation and recuperation of human identity commencing with language.

The sabedores and community leaders themselves have become increasingly active and their circle continues to increase now over four countries (Colombia, Brazil, Peru and Ecuador).

The cultural area of the Banco de la República, Leticia has been active and continues to be so in project activities. As a major government organisation that has given total support to workshops they have highlighted cultural and environmental issues raised by this project. During our two Darwin initiative projects (current and 162/09/008) the Banco de la República have facilitated and actively worked in building up key contacts with G and NG organisations. We have helped them to build up their contacts and relationships with indigenous organisations and sabedores and to bring in a high attendance and participation in workshops.

In the UK, the partnership with St Andrews University (Dr Mario Aguilar, Dean of St Mary's College) continues to develop with the Centre for the Study of Religion and Politics (CSR) being particularly interested in supporting the interdisciplinary nature of this project.

8.3 Partner Involvement in Project Implantation

Partners were involved at all stages of project implementation and planning. As will be seen by workshop topics, the project took into account local participants and partners concerns and views (such as in area of traditional medicine and health), the indigenous way of defining várzea plantations (eg. Production of material “*El Brazo de la Sirena*” or “*Chagras de las Espiritus*”) and took into account the conclusions of this project – that recuperation and strengthening of human identity and languages is an essential and basic component to recuperation of environment and conservation of biodiversity. This is in concordance with work being done on 8(j) in CBD and language has been put as one of the indicators for the 2010 CBD target to measure preservation of traditional knowledge.

8.4 Interaction with other Projects

This project interacted with the ACITAM – SINCHI project on species cultivations in chagras and formed part of the implementation process of the ACITAM project, “*Planes Integrales de Vida*” (). To our knowledge very little work has been carried

out on várzea areas in Colombia, generally. In particular, we have not identified similar projects who work on a par with indigenous sabedores as principal researchers themselves. We did however, identify work done by INPA in Manaus on Riverine plantations which we did attempt to interact with. A visit was made to INPA (Manaus, Brazil) where we spoke with Drs. Rubens and Maite Piedade (Sep 2004) and the project with Max Planck Institute and although they were invited to participate in the following workshop, they were not able to attend. Their work did not integrate with indigenous sabedores.

8.5 International Partners

Many international partners participated in project activities – especially our main workshops in Leticia (See p 6-9 this Project body and).

In summary, main participants were:

UK Partner: University of Strathclyde, Glasgow.

Also included CSRP – University of St. Andrews.

South American Leader: Blanca de Corredor - Asociación para la Investigación Científica Sociocultural y Ecológica (AICSE), Universidad Nacional de Colombia

South American Organizations/Institutions include:

Sabedores and Sabedoras of the Tropical Amazon Forest – Colombia/Peru/Brazil and Ecuador, Riverine and forest indigenous communities including Tikuna, Cocama, Uitoto, Muinane, Andoke, Yukuna, Yagua, Tukano-Oriental, Mayaruna, Quichua, Shuar (Ecuador), ethnic groups

Asociación de Cabildos Indígenas del Trapecio Amazónico (ACITAM), Colombia
Asociación Zonal de Consejo de Autoridad de Tradición Autóctono (AZCAITA), Colombia

Consejo de Ancianos - Colombia

Cultural Area, Banco de la Republica, Leticia, Colombia

Centro Educativo Antonio Nariño-Comunidad de Santa Sofia,

Federação Indígena pela Unificação e Paz Mundial (FIUPAM), Brazil

Instituto Indígena Brasileiro para Propriedade Intelectual (INBRAPI), Brazil

Universidad Tecnológica de la América (UNITA), Quito, Ecuador

AMM visited this project at completion date and post project (Aug/Sep 2006 and Nov 2006). The partnerships continue to be active and in some cases have extended (e.g. to Indigenous Federations of Brazil and Ecuadorian connections). Level of participation with local Government(s) has been left in the hands of the leaders of local organisations for stronger legacy and to avoid security issues. The level of participation in biodiversity conservation is high and promises to continue looking at indigenous identity as a focal point for recuperation and preservation of biodiversity. As can be seen throughout this report and Appendices, there was high community participation. The role for the private sector is to help the indigenous communities with their work on conservation of biodiversity giving recognition to their expertise and following their example of respect of biodiversity.

9. Monitoring and Evaluation, Lesson learning

Methodology for monitoring and evaluation of the project was as stated in the project proposal and as done for previous Darwin project 162/9/008. The project was

constantly monitored by visits from the UK team who work together with the Colombian one. Unfortunately, the UK specialist working with the project, Dr. Phil Mason was not able to visit – this visit would have helped us to monitor project from a western academic point of view. The project area is large, and has a high diversity of participants, many from remote places. The workshops themselves, were a good form of monitoring progress because participants presented results publicly (oral tradition) in the presence of other community members and most important of all, the *sabedores* and indigenous leaders and both indigenous and non-indigenous organisations. At least one member of the UK team participated in all Leticia workshops. In between workshops visits were made to leading organisations, communities. When the UK team was not present, the Colombian counterparts BdeC and/or AAC made visits to communities with a member of ACITAM. Written evaluations were requested from key participants of the project – this was provided by Banco de la Republica, ACITAM and FIUPAM especially (). Also included in, is the translation of a transcription of an interview with Augusto Falcon in November 2006 asking for his overview of the project.

The project participants continue to work together after the end date of the project and AMM has already made two extra visits (Aug and Nov 2006) to follow up on the achievements of project and to continue joint work. Work plans and results were disseminated as they occurred within the structure of the workshops as well as on film. Because of the public dissemination of the work in open workshops where leaders, elders, organisations were present, this was a stringent way of monitoring. The high level of attendance (well over 100 people throughout all main workshops) was proof in itself of local valuation of project. Those academics/researchers who have worked with indigenous communities and *sabedores* will know that they have a very rigid form of evaluation – many academic organisations are in fact reluctant to disseminate their results publicly in the presence of these elders as they do critically analyse everything. The workshop programmes themselves, give a good idea of the way that results were disseminated (see and Exhibits VII to XI). Results – such as the production of educational material and medicinal plant gardens in Santa Sofia. The content of main workshops was programmed and advertised in detail (see and Exhibits II – XI) and there was always the presence of the national and international coordinators in all main workshops and most of the intermediate and community ones. Where this was not possible, such as in the case of the community field research and preparation of the educational material in Santa Sofia, a report was presented (see). All workshops were filmed, participants registered, invitations signed, and a copy of this kept by project team for reference. Copies are also held by ACITAM and Área Cultural del Banco de la Republica.

Visits by both Colombian and UK personnel were made to communities to discuss views of participants of the workshops and suggestions/modifications built into the next workshop/project activity. This is particularly important on the indigenous level as they need to plan formal meetings within their socio-cultural system. As we are treading on novel ground as far as producing educational material useful to indigenous communities, we would note that evaluation and monitoring is complicated by the difference in cultures and disciplines of the specialists involved – indigenous vs. academia. (see). The material was produced at the highest quality available within project budget and taking into account the indigenous point of view

to produce material in the most appropriate form for indigenous use (as stated in project proposal). The design of this material has been made taking into account the high expertise in this area which both the Colombian and UK team have. It was designed together with the indigenous people or edited from material put together from workshops in both the present series of workshops and in those carried out in the previous DI project (162/9/008). We have commenced from the indigenous traditional knowledge viewpoint – hence the inclusion of the spiritual owner of the islands formed in the varzea – the mermaid in the educational material “*El Brazo de la Sirena*”.

We consider that the communities and in particular, Prof DBC director of the school Centro Educativo Antonio Nariño with his teaching staff, have said that most “educational outputs” produced by academics, although well meant, are not particularly useful to indigenous communities as they do not take into account the traditional belief of indigenous people and use language which is not comprehensible to them. For this reason the material is of a completely novel design. This design can be more readily perhaps understood on the academic side by social scientists and anthropologists, but very difficult for western scientists with little or no practical experience of working within indigenous cultures. It would also be noted that community visits and collection of data in the field was severely restricted by security considerations. This will be taken into account on design of further projects in the area. We were not able to visit the more recent rehabilitation plot in Macedonia community. We also note that there was a huge number of participants in this project and collation and translation of all the material collected by the project is still on going. It is intended that a further visit will be made in Spring 2007 to follow up.

We underestimated the amount of time required for translation not only of languages, but cultural interpretation. This then had to be translated for review purposes, but even if we had the funding built into the project, these translations have to be done by personnel who have a good working understanding of the culture – and the translations into English were done in the end by project leaders. This increased our workload for report writing substantially.

Additionally we had the benefit of an MTR in Nov 2004 which was quite helpful as it gave an independent academic view. It would have helped for this type of project, if there could be time/funding put aside to “prepare” the visiting specialist/monitors so that they have a more in-depth comprehension and appreciation of the different indigenous cultures and the methods to approach and question the indigenous sabedores.

includes a discussion of some of these problems.

During the project there has been an external evaluation in the form of an MTR – Nov 2004/ Internal evaluations were continual – workshops – preparation and follow up in communities, public presentations of results, problems, etc.

The key lessons in this project are:

- a. To take into account the differences in education - academic – specialists vs traditional indigenous education which is integral or “all-encompassing” . For this type of project, which is based on recognition of traditional indigenous

knowledge, the integration of knowledge has to be addressed.

- b. Unless visiting specialists or evaluators have in-depth expertise of working together on a par with *sabedores* there is a need for preparation and this should be built into the project (in both time and funding).
- c. For future projects, we would build in much more time for translation/cultural interpretation of material.

10. Actions taken in response to annual report reviews (if applicable)

Our latest report review (2006) raised issues which we have answered within the structure of this report. As we did have an MTR () we have included summaries of the main comments and response to issues raised.

Summaries of Responses to Project MTR Nov 2004 (– Recommendations section)

Training of Indigenous People in video filming/editing (See MTR point 5.1)

This suggestion, although understandable, did not take into account where the indigenous people would get equipment, how they would maintain it in the tropical Amazon forest climate and cost of tapes and editing (equipment etc). Notwithstanding this Andrés Corredor has taught some of the members of the Santa Sofia school techniques of using video equipment and motivated by this, members of ACITAM have now started to work together with the Universidad Nacional in Leticia to work on training in audiovisual materials. Professor Ignacio Prieto also held a workshop in ACITAM to teach photography/video techniques and had some suggestions where funding could be sought for equipment. ACITAM have now teamed up with the U. Nacional, Leticia to use their equipment and learn editing techniques.

Team members have also donated tape recorders and basic cameras (which use film that can be developed in Leticia) to *Sabedores* and leaders; Augusto Falcón (ACITAM), Efrén Ahuanari (Puerto Nariño), René Morales (Atacuari). We have given instructions on mode of use and provided sufficient film, batteries and audio cassettes to keep them going for the foreseeable future.

Additional Workshops in Leticia (See MTR point 5.2)

Two additional workshops were held in May 2005 and June 2006 (final workshop), as well as the planned workshop in Nov 2005. As recommended by the reviewer we continued to encourage the indigenous communities to assume increasing responsibility. We agreed with this suggestion but required at times more work from team members to ensure that these events were planned well in advance, for example. Extra community workshops/meetings were held by *sabedores* and community leaders to organise and coordinate these events. On AMM's return visits (Aug/Sep 2006 and Oct/Nov 2006) we are pleased to report that ACITAM/*Consejo de Ancianos* (Council of Elders) ran their own 2 day workshop in Aug 2006 on recuperation of Cocama language and identity – with no outside funding for 40 participants in Atacuari (they took out a loan – killed a pig for food). FIUPAM disseminated methodology of workshops (because they were based on recuperation of identity) and they are copying and presenting selected parts (they themselves – Indigenous Federations - Manaus – editing out the parts which are important to them).

Cancelling of UK Workshop (See MTR point 5.3)

The proposed workshop in UK was cancelled. However, BdeC visited the UK in November 2005 and the project was presented in the University of St Andrews – Centre for the Study of Religion and Politics (CSRP) to a diverse audience.

Focus of Project Workshops (See MTR point 5.4)

A concern was expressed in the MTR and first year review that the focus of workshops was on traditional medicine and medicinal plants. The project team worked with community leaders and *sabedores* to keep the focus on practices of management of *várzea*. However, we would refer to which points to some of the basic differences between academic and indigenous education. The indigenous education is all encompassing and based on identity. When the *sabedores* refer to *várzea* plantations – this includes for them ecological niches planted by humans and other entities such as spirits and animals. We would also highlight the conditions set up by ACITAM which ask for the project to give priority and respect to the indigenous point of view (). The product “*El Brazo de la Sirena*” with its mythology is centred on the *várzea*. We also paid attention to priorities given by indigenous people on practices such as traditional medicine, quality of life (*Planes Integrales de Vida* – see), and in particular the importance of recuperation of identity – see discussions in previous sections in this report. We have given more and more responsibility to indigenous community leaders and *sabedores* to actually organise the workshops (recommendation 5.2) we have guided rather than imposed priorities. This coincides with the advice given in the MTR point 5.2 that it is important that indigenous groups continue to assume responsibility for organising and managing the workshops and relates to CBD declaration of Colombia. The publications “*Chagras de los Espíritus*” and “*El Brazo de la Sirena*” take into account other practices within the management of the *várzea*.

Cancellation of visit of UK Consultant (See MTR point 5.5)

As already discussed in this report the visit of the UK consultant, Dr. Phil Mason was cancelled. We did not manage to identify a suitable¹⁴ local university trained floodplain farming specialist in Colombia. However, we did visit INPA in Manaus and communicated with them to invite a specialist to the workshop but they were not able to come to the workshops/visit the communities.

Interchange Visits (See point 5.6)

We were partially able to do this. The project team member, Professor Eudocio Becerra is professor in linguistics at the Universidad Nacional de Colombia and a Uitoto *sabedor*. He participated in all workshops and is an expert in developing material in indigenous languages. He has himself published various works¹⁵. His advice was sought at all times. He is also an expert in sustainable management of ecosystems and lectured to the workshop on these techniques – especially sustainable hunting. *Sabedor* Isaías Román Sánchez, who still maintains knowledge of traditional methods of management of *várzea* and forest also lectured various times at

¹⁴ A specialist prepared to work on a par with indigenous *sabedores* or who was within our project budget.

¹⁵ Eudocio Becerra (Bigidima) was part of the translation team for the second part of the work: Preuss, K.T. 1994 (*Religion y Mitología de los Uitotos*”, Editorial Universidad Nacional de Colombia, Ediciones Antropos Bogotá, Colombia.

workshops. Indigenous sabedores from Brazil – contacts made through Manoel Fernandes Moura (FIUPAM) have also exchanged ideas with members of the workshops. In November 2005, a Shuar sabedor Alberto Antún Tuntuam, also coordinator of Universidad de las Nacionalidades Indígenas de la Amazonia Ecuatoriana, LEDA (Amazon tropical Forest, Taisha, Morona, Ecuador) participated in the workshops and shared with the participants his experiences in maintenance of traditional knowledge of forest management and use and presented some of the problems facing the indigenous forest communities in Ecuador. In Nov 2005 and June 2006, the Vice Dean of the Universidad Tecnológica América (UNITA), Quito came to share his expertise in working with communities in Ecuador who are also interested in ways to continue their traditions, maintain traditional knowledge, but also to work in areas of ecotourism and sale of products. He also came with material which they use in the university to teach students on conservation of the environment. Both Manoel Moura (President, FIUPAM, Tabatinga, Brazil – Sabedor Tukano Oriental) and Isaías Román (*Sabedor* Uitoto) participated in the COP8¹⁶ – Curitiba and presented with the current Sabedores-sabedoras project. We also presented (with photographic evidence recorded by us and from the media) and discussed the problem of the drought in 2004 and severe drought in 2005 in Amazonia in the November 2005 workshop in Leticia. (See Exhibit XX). We would comment that we are in no doubt that the sabedores of the Amazon forest are in no doubt of the value of their traditional knowledge. It is the problem of general acceptance of this and of loss of identity, which has resulted in the younger generations devaluing their culture.

Capacity Assessment of Indigenous Organisations pre and post project (See MTR point 5.7)

We agreed with the reviewer that this is not easy to quantify. However, the team recognise the importance of this and are trying to do this at least at a qualitative level. ACITAM has visibly strengthened in capacity and in our final workshop presented its current project of Implementation of integral living plans in areas of territory, environment, health, combining indigenous and state education, uniting sabedores and community etc. Training by project team on running workshops, integrated work in communities has gone a long way in helping the organisation progress to this point. ACITAM now have their own computer room, part of their concrete built indigeneous centre and are training with the Universidad Nacional, Leticia and SINCHI (“*La Chagra Conocimiento de Vida – Proyecto fortalecerla Diversidad del Cultivo y Productividad de la Chagra para el Mejoramiento de la dieta Alimentaria de las Comunidades Indígenas del Trapecio Amazonico*”)

11. Darwin Identity

The project publicised the Darwin Initiative in all of their workshops which included a range of participants from communities, individuals, both governmental and non-governmental organisations (see). These workshops were advertised as Darwin Initiative on local radio stations (e.g. Hondas Amazónicas). The logo was used on all banners both inside and outside the workshop (See Photos 1 and 2 below) and on posters and workshop programmes (see and all exhibits). The Darwin logo is also on

¹⁶ <http://www.biodiv.org/meetings/cop8mop3/default.shtml>

*Indigenous Methods to Sustainably Manage Riverine Plantations,
Amazon Region - Project Ref. No. 162/12/016*

“certificates” given to attendees at workshops therefore going back to communities post-workshops.



Photo 1 Banner announcing Project workshop June 2006 outside library of Cultural area of Banco de la República, Leticia



Photo 2 Workshop leaders at end of April 2004 workshop - Cultural area of Banco de la República, Leticia

In the host countries the understanding of the Darwin initiative, is an initiative led by the British government to aid conservation of biodiversity using funding and both local and British expertise. The understanding is that it provides funding and expertise to aid and to give strong support to local biodiversity conservation initiatives. The evidence that people are aware of this project can be seen in workshop participation (See) and that there is a high demand to continue them. We include some letters written by leaders (see). The project is referred to as Darwin Initiative in programmes published by the government bank Banco de la República.

The project was recognised as a distinct project with a clear identity and has “spawned” other projects in local communities and organisations e.g. Atacuari, FIUPAM (workshops, on basis of recuperation of identity) – See. It has brought many Amazonian communities together to discuss biodiversity conservation and várzea awareness programmes [CBD¹⁷ also].

12. Leverage

Considerable additional funds were attracted to the biodiversity work associated with the project. Some of these funds have been included in Output 23 Table – Appendix II. The Banco de la República – Área Cultural – Leticia lent us their auditorium and gave us support with workshop coordination and diffusion. We have put figures on this support (based on their normal charges for these services to outside services etc.) only a limited amount of daily subsistence was claimed from Darwin funding – a substantial amount was put in by participants of project, team etc – see point 23 table – Outputs – Appendix II. All conferences and contributions to workshops were given free. Participants and speakers gave up their normal work to participate in workshops. Pedro and Janette Bakı charged the project minimum rates for travel. We have totaled this in point 23 Outputs table – Appendix II. Additionally, the project has supported post-project activities such as continuation of support of Augusto Falcón (£600.00) for this coming year. The members of the project team (UK and Colombia) bought cameras, tape recorders, film, cassettes for communities to document and record their own traditional knowledge. The team used laptop, camcorders and other equipment which had been secured for previous project but this was upgraded/maintained by team. Communities gave us use of facilities for accommodation and holding workshops. A substantial amount of unpaid extra work and energy was put into the project, including the translation of material for reports etc.

The whole workshop process helped in capacity building of organisations and communities involved in project to secure funding. ACITAM and Santa Sofía have secured some support in the form of equipment and in the case of ACITAM for commencement of PIV project. Prof. DBC, Santa Sofía, is hopeful more local government help will come in for teachers to do biodiversity conservation research – conservation of traditional knowledge with teachers – but this has not been secured yet.

Workshops resulted in cohesion of indigenous and academic organisation e.g. ACITAM now working with U. Nacional, Leticia and SINCHI/Red de Solidaridad on capacity building and joint projects¹⁸. ACITAM’s PIV project (see) is also looking for support and to working together with local government. Project proposals have been received from the communities and project team are looking to present these with the Recuperation of identity projects.

¹⁷ <http://www.biodiv.org/convention/default.shtml>

¹⁸ Joint Projects include: 1. Artesanías project: output: Manual on natural sources of materials for making artesanías entitled: “*Oficios Artesanales del Trapecio Amazónico Colombiano*” published by Red de Solidaridad Social & ACITAM. 2. Project strengthening diversity of cultivation of the Chagra to improve nutrition of indigenous communities of the trapezio Amazónico. Output: poster entitled: “*La Chagra Conocimiento de Vida – Proyecto fortalecer la Diversidad del Cultivo y Productividad de la Chagra para el Mejoramiento de la dieta Alimentaria de las Comunidades Indígenas del Trapecio Amazonico*” - ACITAM, SINCHI & Red de Solidaridad.

13. Sustainability and Legacy

The central most successful part of this project was the workshops – both the large ones held in the Cultural area of the Banco de la República, Leticia and locally run ones in communities. The large ones were run in the Área cultural del Banco de la República (5 workshops with at least 100 participants for the whole week and a floating participation of up to 200) – see. These workshops brought together many communities and greater than 20 ethnic groups from all over Amazonas, Caquetá, Chorrera and from Peru, Brazil and ultimately Ecuador. As a direct result of these large workshops there is now a core of elders working together with organisations such as ACITAM and with younger indigenous personnel to look at the root of the problem of the loss of traditional knowledge. They have identified this loss as being directly due to loss of human identity and language. If preservation and recuperation of biodiversity is to be successful using the traditional knowledge held by a diminishing number of elders, then the problem of human identity has to be tackled. This cohesion, awareness is most likely to endure because the elders with certain communities are looking for ways to recuperate this traditional knowledge by means of recuperation of human identity. Specific examples are recuperation of the Cocama language and identity in Atacuari (leader – *abuelos* Rene Moreno). Rene has already gathered a team of elders and community members, and with the help of ACITAM and looking for outside help (AMM and BdeC) have begun the task of recuperation of Cocama language. They are doing this at the same time as recuperating the knowledge of rituals and methodology for construction of the traditional Cocama Maloca – necessary to teach and pass on knowledge of sustainable management and conservation of the environment – that in their case includes forest and várzea.

Two main practical workshops were run by the community in Santa Sofia – one to recuperate knowledge of the medicinal plants and to construct a medicinal plant plot and the other to study the connection between traditional and várzea “productivity”. The importance and longer lasting impact of this workshop was the bringing together of elders with the school teachers and young people of the community. Not only was the knowledge collected together and a plot made, as a direct result of this the community has continued to strengthen this cohesion of community and the elders now work together with children in the school teaching them about traditional methods of conservation of forest and várzea environments as well as traditional medicine. The second main practical workshop was the preparation, practical activity, follow up and preparation of educational material “*El Brazo de la Sirena*”. This fortified the relationship between elders, school teachers and children and **raised** awareness, in particular of the traditional management of the várzea – in the form of looking at the history and management of the formation of an island in the Rio Amazonas. The mythical mermaid is an example of material produced using the ideas and philosophy of the people themselves, respecting the fact that they have their own beliefs and traditional expertise. The Sirena, for example is the spiritual owner of the várzea. This very much continues from the work produced in the first Darwin Project (DI 162/9/008) in which the communities looked at the Chagras and their spirits laying down the basis for looking at várzea chagras or plantations, traditional activities such as hunting and fishing in the várzea regions. It was very much presented from the indigenous point of view but with the academic expertise of AAC. The director of the school, Prof DBC is continuing this form of work with the schoolchildren together with elders – Santa Sofia - Amazonas, is promoting recuperation of language.

The people themselves – in particular the group of elders and the director of the Centro Educativo Antonio Nariño, Santa Sofia have now run short workshops/meetings in other communities to work on the recuperation of human identity.

The work done in this project is continuing to be replicated in schools and colleges in Spanish and native indigenous languages. In the communities, recuperation of language will enable the traditional knowledge of management of environment to be passed on – in family home and school education. The importance of recuperation of identity and all that goes with it (language, traditional knowledge of management of the environment, health and medicine) has been clearly expressed in the workshops of this project.

Although long term, the establishment of a process of recuperation of identity is a method of recuperation and preservation of biodiversity and of the environment. The elders from the main communities in this post project era will continue with this process in their communities. This will be possible with the communities involved as main players in the project and in the post project stage taking more responsibility in running the project activities, which will strengthen legacy. We have already found in the present project that dissemination of results in workshops and communities increases awareness and motivates other communities/organisations to take on similar projects. The post project phase will follow up on this and strengthen legacy and impact. As the main workshops include participants from many different areas, nations, ethnic groups, countries in Amazonia, it is clear that these groups would have to look for funding to do their own educational projects. It is planned that support in the form of encouragement to the elders/leaders in the communities to recuperate their identity and environmental biodiversity that will continue to build up their confidence and strengthen the importance for continuing in this work. The results and audiovisual material (which include presentations in Spanish and local languages) from workshops were lodged in the Library of the Banco de la República, Cultural section where they have facilities to lend to the public, view audiovisual material.

The main conclusions and outputs are being widely applied especially in Atacuari, Puerto Nariño, Santa Sofia, Macedonia, Colombia and by FIUPAM, Brazil who have spread the methodology of our workshops to other parts of the Brazilian Amazon and to Venezuela. In Peru, Don Juan Cobos has proposed setting up a project with other members of his community there (see). In Ecuador, the Shuar leader Alberto Antún Tuntuam (who participated in our Nov 2005 workshop) has taken back methodology for recuperation of identity and environment to his community in Taisha, Morona and we have just heard that they have formed their own foundation for recuperation (Fundación Amazonas) of identity and conservation of territory. Prof Luis Huaraca (participated in workshops Nov 2005 and June 2006) with other colleagues has formed a foundation (Fundación Selva Tamia) to look at sustainable methods of ecotourism in the Ecuadorian Amazon forest and education/identity recuperation with Qhichua and Shuar groups.

Legacy could have been improved by more active participation by local academic

institutions. The institutions were invited to the workshops and to get more involved with the research, but the gulf between the indigenous education and our academic education is vast – see. Historically in the Amazon region, there has been a domination of indigenous peoples. Indigenous people therefore nowadays often do not accept academic specialists who have not had the training from elders or a good understanding of traditional knowledge and therefore the whole ecosystem. The UK partner involvement has helped to break down some of the barriers and can continue to do so by continuing international institution involvement. This is strengthening, and giving credibility to, the traditional knowledge held by the indigenous elders on sustainable management of the Amazon rainforest. This has helped give confidence to organisations such as ACITAM and FIUPAM and communities such as Santa Sofia, Macedonia, Atacuari to go ahead and propose projects and initiatives to recuperate traditional knowledge commencing with identity.

The project is looking for funds to develop the project of recuperation of human identity and traditional knowledge of conservation of biodiversity – a Darwin Initiative scoping award has already been sought (University of St Andrews). This would include the proposals for recuperation of human identity, which have been presented by sabedores and communities (See). This interdisciplinary project would be the preliminary step to establishment of the indigenous university, which would be developed integrating academic with indigenous traditional knowledge. This proposal has been made during our workshops and is the idea of Dr. Daniel Munduruku – INBRAPI and Dr. Manoel Moura, FIUPAM. We have also commenced a proposal on recuperation of identity as a form of avoidance of conflicts – peacekeeping with University of St Andrews and are looking to applying for an AHRC grant.

14. Value for money

The project has done wonders in bringing together the participants of the workshops to agree to work together on biodiversity conservation and recuperation, commencing with identity. The benefits can be seen in this project from the high participation numbers in workshops working on sustainable management of forest and várzea. The spin-off projects – Rehabilitation of várzea – Mario Gutierrez in Santa Sofia (see), medicinal plant gardens, rehabilitation of Macedonia, recuperation of Cocama identity in Atacuari (see). The proposals for continuation of work of recuperation identity illustrate the impact of this project bringing communities and organisations together to work on recuperation of identity and traditional knowledge of conservation and management of biodiversity. The project shows good value for money as, from a relatively small funding, we have generated a macro project which includes a wide diversity of cultures and disciplines over four S.A. countries. Thus more than 20 ethnic groups, including the most dominant in the area such as Uitoto & Tikuna, have and are participating in the macro-project. It is especially encouraging to know that the less dominant groups (e.g. the Cocama) have found their voice and are recuperating their identity. The project has attracted interest and support from organisations and communities as well as local government (see point 13)

15. Conclusions/sum-up/final commentary (BdeC)

We are grateful to the Darwin Initiative who made this project possible together with national and international entities that supported us for the total realisation of the workshops and seminars of the two projects (162/12/016 and 162/9/008). We remain satisfied to have presented intellectually and materially, with great enthusiasm – a contribution to research and to publicly present this project, in particular knowing that the committed ethnias are working on a par (not only the Trapeçio Amazonico but extending to other areas of the Amazon basin) and that they continue to work. Not only are the communities and organisations continuing to work on this project, they have presented their own projects. For these they are not asking for funding in cash but for elements to continue rescuing their cosmovision – language, plant knowledge, traditional medicine, ritual history and other facets of traditional knowledge. With this process, they have advanced in their traditional knowledge – valuing it rescuing it, preserving it. This is a slow process, but a firm start has been made and by treating the *sabedores* as equals to academics this in itself has given them a respect and confidence. Recuperation of indigenous language leads to recuperation of traditional indigenous knowledge of conservation and sustainable management of the environment and ecology in general.

The tropical Amazon forest is a unique place and very particular being made up of all the biotopes of the world. The forest together with its biotopes conformed is made up of many ecological systems – when we talk about agriculture there is a specific case to these systems and the biodiversity found there. Its management requires in-depth specialist studies of the systems there which do not have anything to do within daily life with other systems of production where they are managed with inappropriate techniques which result in the practically irreversible destruction of these delicate ecosystems.

This study should be based in the profound ecology, which can let us comprehend how other biotopes, systems in other countries in another hemisphere or even in South America, which can be destroyed very easily. Trying to implant methods of instruction, foreign methods, which may be very academic and far from the reality of the *sabedores* and *sabedoras* who manage the biodiversity and have conserved these methods for millennia in order to preserve the biotic system as a privilege for this world. It could be that this study and the extension of this system of management of the biotopes can give hope to salvation not only of the forest system but also in world at large.

The ecological niches are different because we find in the alluvial forest spreads almost permanently over other areas such as the islands which appear and disappear not because of human intervention but because of permanent irrigation such as in the river Amazon várzea. When the river levels drop the River Amazon leaves a rich soil on the várzea which can be used for agriculture – subsistence because of the richness of the rivers and their sources. These zones characterised by gravely and sandy soils are bathed by the white river waters especially the River Amazonas, where this rich soil has been deposited, growth is temporarily abundant.

In this area – the várzea – there are islands which appear and disappear, great beaches which can be planted with many types of edible plants – yuca, maize, rice, water melons etc. etc. You can even find plantain the várzea variety) – which is bathed by

the river, but has adapted to survive and its taste is unique. Many other fruiting trees and plants are found in these regions – see the project outputs “*El brazo de la Sirena*” (Exhibits XIV and XV) and “*Chagras de los Espiritus*” – Exhibit XVII). Basically all types of fruits and edible plants can be planted in these areas taking into account the cycles of flooding – varieties of yuca are used which can be harvested at three, four and six months etc. This has all been calculated out by the indigenous specialist.

The “*restingas*” are areas which we can say have formed slowly the great areas of the várzea. They are very rich and support agriculture/plantations semi-permanently and other areas such as permanent lakes where all classes of palms grow – in particular *Mauritia spp (cananguchales)* whose roots retain water and are practically centres for water “holes” which act as nurseries and habitats for all types of aquatic and terrestrial fauna (See “*Chagras de los Espiritus*” – Exhibit XVII)