Resume The Bananal Island Carbon Sequestration Project Phase I – Ecológica Institute

Sponsor: AES Barry Foundation, South Wales - UK

Location: Brazil - South-west Tocantins – Bananal Island region – Municipalities of Caseara, Lagoa da Confusão, Cristalândia, Pium and Dueré.

Period: 1998-2003

Description of the Project: In this project Ecológica's responsibilities included project design and implementation, operational management and environmental monitoring supervision.

The Bananal Island Carbon Sequestration Project (BICSP 1) is Brazil's first large-scale carbon sequestration pilot project.

The carbon sequestration objectives are achieved through forest conservation and regeneration, and agro forestry schemes in communities in the Bananal Island region. The conservation measures were carried out in partnership with IBAMA and Naturatins (federal and state environment agencies). Sapling nurseries have been set up in partnership with local councils and community organizations to support the agro forestry schemes, producing fruit, timber and medicinal species for distribution to local inhabitants and for reforestation.

The social component of the project is geared to improving the living standards of communities in the project area. This is achieved through a range of environmental education activities in both formal and informal contexts, and the promotion of agro forestry, sustainable local enterprises and community infrastructure development. The Social Carbon approach, developed by the Ecológica Institute, emphasizes the role of community participation in carbon sequestration projects. Due to its success in BICSP, the approach has been replicated in other projects.

The project's research component was carried out principally from the Canguçu Research Centre which was opened by the Brazilian Environment Minister, Sir José Sarney Filho, and the Governor of Tocantins State, Sir José Siqueira Campos, in August 1999. Several doctoral theses and Masters Dissertations have been completed at the Centre, and others are currently in progress. The Canguçu Research Centre is the emerging centre for climate change and renewable energy issues in the Amazon Region, and is participating in the Large Biosphere Atmosphere Project of Amazonia (LBA).

Work at Canguçu is conducted in partnership with the Federal University of Tocantins (UFT) and with national and international research institutions including the Institute for Astronomy, Geophysics and Atmospheric Sciences at the University of São Paulo (IAG/USP), the Tocantins State University (UNITINS), the Palmas campus of the Lutheran University of Brazil, and the New Hampshire University.

Main Achievements: Elaboration of geoprocessing studies (5 mi/ha) and development of baseline methodology for forest preservation projects; Regional forestry species inventory and studies on biomass and carbon stock in areas of Brazilian Savannah (Cerrado), Tropical Forest and Wetlands (Pantanal); Developing and implementing the 'social carbon™' concept, which was piloted in this project; Rapid rural appraisal diagnostic in 13 settlements of the region using the sustainable livelihood methodology and the social carbon methodology; Support for conservation of 200,000 ha of tropical forests in the Araguaia National Park and the Cantão State Park – west Tocantins; Setting up 2 nurseries producing saplings for distribution to local communities; Distribution of an average of 25,000 saplings per year throughout the project area; Setting up demonstration units for community-based agro forestry; Construction and operation of the Canguçu Research Centre; Developing and implementing methodology to define biomass, carbon stocks and carbon flux in regional ecosystems in the Bananal Island

area; Participatory drafting and publication of the handbook “Learning with Nature” to support environmental education in local primary and secondary schools; Training of 245 teachers in environmental education issues and classroom techniques to address these issues effectively in 1999 – 2001; Recycling systems established in 2 municipalities, support for project municipalities on environmental policy; Setting up and promoting Delícias do Cerrado sweet factory, an enterprise run by a group of women in the União II settlement; Presentation of the project and the results of associated research activities to the Conference of Parties (COP) meetings on the implementation of the Kyoto Protocol in The Hague (COP 6, Part 1) Marrakesh (COP 7), New Delhi COP 8 and presentation of the book Social Carbon, Adding Value to Sustainable Development at COP 9, Milan; Public policy support, though several presentations in Brazil and abroad; Publication of two books presenting research results and methodologies.

Resume The Bananal Island Carbon Sequestration Project Phase II – Ecológica Institue

Sponsor: AES Fifoots, South Wales, UK

Location: Brazil, South-west Tocantins – Bananal Island – Araguaia Indian Reservation - Municipality of Lagoa da Confusão.

Period: 2000-2001

Description of the Project: In this project Ecológica’s responsibilities included project design and implementation, operational management and environmental monitoring supervision.

The project implemented and continued the ‘social carbon™’ concept and the principles of forest management, scientific research and community development launched under the first phase of the Bananal Island Carbon Sequestration Project (BICSP 1) in the Araguaia Indian Reservation. This reservation, which has an area of 15,600 km² (1,560,000 ha), lies to the south and west of the Araguaia National Park on Bananal Island is home to the indigenous Karajá and Javaé tribes.

The project was run in partnership with FUNAI – the National Indian Foundation – the federal agency which has jurisdiction over the Araguaia Indian Reservation. To maximise the compatibility between the project’s carbon sequestration objectives and the needs and aspirations of the Reservation’s inhabitants, the project’s main focus was on improving the living conditions of the Karajá and Javaé tribes, assisting their efforts to derive sustainable livelihoods from their environment.

As a result of extensive consultations with the indigenous communities, a wide range of activities have been identified to improve the Indians’ nutrition, strengthen their culture and improve their income generating potential. These included fish farming, bee keeping, handicraft production, chicken rearing, agro forestry schemes and reforestation and ecotourism. Also, some indigenous territories, which had not yet been legally recognized, were demarcated.

Main Achievements: Survey of social-economic and environmental conditions among the indigenous communities on Bananal Island – published in 2001 in Portuguese and English; Beginning positive and open relations between staff at the Ecológica Institute and the Island’s indigenous communities; Identification of 3 target communities for the initial phase of project activities; Preparatory identification and delimitation and demarcation of the Cacique Fontoura indigenous territory to the west of Bananal Island in Mato Grosso state. Report being finalized for submission to Ministry of Justice and approval successfully registered in the federal bulletin; Technical feasibility study of fish-farming enterprises for indigenous communities using tank network; Construction of 2 bungalows at the Canguçu Research Centre to house visitors and researchers; Setting up and operating a meteorological station at the Canguçu Research Centre. The information is stored in a database which is being used to support research into carbon cycles and sequestration. Equipment costs financed by UK Embassy in Brasília; Community members trained in bee-keeping techniques at the Javaé villages of São João and Boto Velho; Community-supported construction of a village school in Boto Velho. Classes at the

school began in March 2001; Environmental education focused on rubbish disposal with separation of recyclable materials; Construction of the Hyyna Heto (House of the Past) Cultural Centre in Boto Velho to serve visitors to the village and facilitate income generation through sale of handicrafts etc.; Setting up a sapling nursery in the town of Lagoa da Confusão producing native forest species and fruit trees to support the project's agro forestry activities (in conjunction with the Women's Education for Family Health Project).