



## CONTENIDO

Alternative agriculture for a sustainable rehabilitation of deteriorated volcanic soils in Mexico and Chile (REVOLSO)

Anti-infectious immune effectors in marine invertebrates: characterization and application for disease control in aquaculture (IMMUNAQUA)

Artemia biodiversity: current global resources and their sustainable exploitation (ARTEMIA BIODIVERSITY)

Biodiversity conservation, restoration and sustainable use in fragmented forest landscapes (BIOCORES)

Characterisation of South American genotypes of bean for optimal use of light under abiotic stress (OP.US.LI)

Collaborative Learning and Distributed Experimentation (COLDEX)

Control of epiphytism in gracilaria chilensis mariculture (EPIFIGHT)

Discussion group on environmental policy instruments in Latin American and European liberalized electricity markets (GRENELEM PROJECT)

Estuaries and coastal areas Basis and tools for a more sustainable development (ECOSUD)

Improved diagnosis, drug resistance detection and control of tuberculosis in Latin America

Innovative approaches to understand complex microbial communities for eco-engineering the degradation of herbicides in stressed agricultural soils (ACCESS)

Latin America thematic network on bioenergy (LAMNET)

Marker assisted selection for table grape (MASTER)

Opet Associate for the Mercosur Region (OPET MERCOSUR)

Regeneration of semiarid plant communities: the role of El Niño southern oscillation and herbivory control (ELNINO)

Sustainable economic utilisation of wild South American camelids: strategies for improving rural productivity in pastoral communities in Latin America (MACS)

The core European bioinformatics research infrastructure in the life sciences (EMBCORE)

The development of a food quality and management system for the control of Mycotoxins in cereal production and processing chains in Latin America south cone countries (MYCOTOX)

## Alternative agriculture for a sustainable rehabilitation of deteriorated volcanic soils in Mexico and Chile (REVOLSO)

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**Fecha de inicio:** 01 de Enero de 2002  
**Fecha de término:** 31 de Julio de 2007  
**Sitio Web del proyecto:** <http://revolso.isvo06.org/>  
**Tipo de proyecto:** INCO 2  
**Areas prioritarias:** Investigación para el Desarrollo

**Institución coordinadora Chilena:** Universidad de Concepción  
**Sitio Web de la Institución:** <http://www.udec.cl>  
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**Correo electrónico coordinador:** [ividal@udec.cl](mailto:ividal@udec.cl)

**Institución coordinadora Europea:** Justus-Liebig-Universität Giessen  
**País de la institución coordinadora:** Alemania  
**Sitio Web de la Institución:** <http://www.uni-giessen.de/cms/>  
**Nombre coordinador:** Dr. Gerd Werner  
**Correo electrónico coordinador:** [Gerd.Werner@agrار.uni-giessen.de](mailto:Gerd.Werner@agrار.uni-giessen.de)

**Costo total del proyecto:** 1.599.640 Euros  
**Contribución EC al Proyecto:** 1.475.286 Euros  
**Costo total de la participación nacional:** 259.811 Euros  
**Contribución EC a la participación nacional:** 259.811 Euros

### Resumen

Sustainable agriculture and development have been given prominence in the Fifth Framework research programme. This Project is designed to work out and support the implementation of a technology package for sustainable agriculture and agroforestry for disadvantaged rural regions with deteriorated volcanic soils in Mexico and Chile. In this way, international scientific excellence will directly contribute to the sustainable development of disadvantaged rural communities.

The loss of diversity at several levels is frequently discussed. In any case, the preservation or improvement of ecosystems (including agricultural ecosystems) against critical life-hindering forces is of crucial ethical importance for the environmental policy of the European Community, which is applied also abroad. Sustainable agriculture and agroforestry fully support the enhancement of biodiversity, as wished by the Community. This proposal thus, fully agrees with the sustainable development paradigm, as long-term considerations are essential components.

Since ecological production processes have to be pushed world wide to diminish the overall environmental contamination caused by non adequate management systems, the research on this technology package on sustainable agriculture and agroforestry will contribute to this aim. The implementation of the innovative technologies will improve the ecological standards in Developing Countries.

By means of this Project, the international scientific network between European research partners and Latin American investigators is strengthened. Valuable experiences from non European countries will be transferred to European scientists. The technology package worked out for the sustainable reclamation and use of deteriorated volcanic soils in Latin America will be valuable as reference for similar regions in Southern Europe.

Since the work out of the innovative technology closely involves local small holders, the participatory approach is given. Thus the present Project follows the EU policy to help the Developing Countries to find themselves the adequate solutions for their development.

### **Otras Instituciones Participantes**

Universidad de Concepción (Chile)

Consejo Superior de Investigaciones Científicas, CSIC (España)

Institut de Recherche pour le Développement, IRD (Francia)

Università degli Studi di Pisa (Italia)

Colegio de Postgraduados (México)

Universidad Autónoma de Chapingo (México)

Universidad Autónoma de Tlaxcala (México)

Centro Nacional de Investigación para la Producción Sostenible (México)

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## **Anti-infectious immune effectors in marine invertebrates: characterization and application for disease control in aquaculture (IMMUNAQUA)**

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**Fecha de inicio:** 01 de Febrero de 2002

**Fecha de término:** 31 de Julio de 2005

**Sitio Web del proyecto:** <http://www.immunaqua.com/>

**Tipo de proyecto:** INCO 2

**Areas prioritarias:** Investigación para el Desarrollo

**Institución coordinadora Chilena:** Universidad Catolica de Valparaiso

**Sitio Web de la Institución:** <http://www.ucv.cl>

**Nombre coordinador:** Dr. Sergio Marshall

**Correo electrónico coordinador:** [smarshal@ucv.cl](mailto:smarshal@ucv.cl)

**Institución coordinadora Europea:** Institut Français de Recherche pour l'exploitation de la Mer, IFREMER

**País de la institución coordinadora:** Francia

**Sitio Web de la Institución:** <http://www.ifremer.fr>

**Nombre coordinador:** Dr. Bernard Boyer

**Correo electrónico coordinador:** [Bernard.Boyer@ifremer.fr](mailto:Bernard.Boyer@ifremer.fr)

**Costo total del proyecto:** 1.916.487 Euros

**Contribución EC al Proyecto:** 1.226.024 Euros

**Costo total de la participación nacional:** Información no disponible

**Contribución EC a la participación nacional:** Información no disponible

### **Resumen**

As world aquaculture is facing economical losses due to infectious diseases, the project objectives are to provide new therapeutic agents and new approach for the control of diseases in mollusc and shrimp production. The approach deals with the isolation and the characterisation of antimicrobial molecules, immune non-specific effectors produced naturally by these invertebrates and to investigate their antimicrobial properties against a wide range of pathogens. The selected antimicrobial effectors will be then monitored on larvae for their potential beneficial and/or protective effect against infections. Moreover, the expression of anti microbial effectors encoding genes will be analysed at population level for evaluation of their use as genetics markers for increased non-specific response to diseases. Candidate molecules and genes, as well as new selection approach, will be supplied for further exploitation in aquaculture.

## **Otras Instituciones Participantes**

Gent University (Bélgica)

Universidade Federal de Santa Catarina (Brasil)

Universidad Católica de Valparaíso (Chile)

Chinese Academy of Sciences (China)

Université de Montpellier II (Francia)

Centre National de la Recherche Scientifique (Francia)

Institut Français de Recherche pour l'exploitation de la Mer, IFREMER (Francia)

Atheris Laboratories (Suiza)

Chulalongkorn University (Tailandia)

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## **Artemia biodiversity: Current global resources and their sustainable exploitation (ARTEMIA BIODIVERSITY)**

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**Fecha de inicio:** 01 de Enero de 2002

**Fecha de término:** 31 de Diciembre de 2004

**Sitio Web del proyecto:** <http://www.aquaculture.ugent.be/rend/INCO/index.htm>

**Tipo de proyecto:** INCO 2

**Areas prioritarias:** Investigación para el Desarrollo

**Institución coordinadora Chilena:** Universidad de Los Lagos

**Sitio Web de la Institución:** <http://www.ulagos.cl/>

**Nombre coordinador:** Gonzalo Gajardo

**Correo electrónico coordinador:** [ggajardo@ulagos.cl](mailto:ggajardo@ulagos.cl)

**Institución coordinadora Europea:** Gent University

**País de la institución coordinadora:** Bélgica

**Sitio Web de la Institución:** <http://www.ugent.be>

**Nombre coordinador:** Andreas De Leenheer

**Correo electrónico coordinador:** [andre.deleenheer@UGent.be](mailto:andre.deleenheer@UGent.be)

**Costo total del proyecto:** 800.000 Euros

**Contribución EC al Proyecto:** 800.000 Euros

**Costo total de la participación nacional:** Información no disponible

**Contribución EC a la participación nacional:** Información no disponible

### **Resumen**

Recent Intensive research of the brine shrimp *Artemia* (distribution, ecology, strain characteristic and aquaculture applications; it is the most common larviculture live food) has lead to the identification of new species and the development of new biochemical and genetic description techniques. Its natural resources are exploited intensively, at times at the edge of extinction; endemic strains are out competed by introduced more productive foreign ones. In spite of massive literature of a growing number of specialists, integration of knowledge into a conceptual framework is lacking: expertise is often confined, both geographically and methodologically. This global concerted *Artemia* - study consists of a training and workshop programme, resulting in technical intercalibration, integration of current ecological and evolutionary concepts, and uniformus methods to assess population dynamics. Guidelines, issued on sustainable exploitation and strain introduction, will be tools for authorities to protect biodiversity and to avert overexploitation and extinction of strains. *Artemia* will be a model organism for other animals facing similar risks.

## **Otras Instituciones Participantes**

Universidad de Buenos Aires (Argentina)

Ghent University (Bélgica)

Agricultural Research Center-Ghent (Bélgica)

Universidade Federal do Rio Grande do Norte (Brasil)

Universidad de Los Lagos (Chile)

Salt Research Institute (China)

Instituto de Acuicultura de Torre de la Sal (España)

Aristotle University of Thessaloniki (Grecia)

Manonmaniam Sundaranar University (India)

Urmia University (Iran)

Università La Sapienza (Italia)

Universidad Autónoma Metropolitana-Xochimilco (México)

Rhodes University (Sud Africa)

Université de Carthage (Túnez)

Can Tho University (Vietnam)

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## **Biodiversity conservation, restoration and sustainable use in fragmented forest landscapes (BIOCORES)**

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**Fecha de inicio:** 01 de Junio de 2002  
**Fecha de término:** 31 de Mayo de 2005  
**Sitio Web del proyecto:** ---  
**Tipo de proyecto:** INCO 2  
**Áreas prioritarias:** Investigación para el Desarrollo

**Institución coordinadora Chilena:** Universidad Austral de Chile  
**Sitio Web de la Institución:** <http://www.uach.cl>  
**Nombre coordinador:** Andrés Iroumé  
**Correo electrónico coordinador:** [airoume@uach.cl](mailto:airoume@uach.cl)  
**Otras instituciones chilenas participantes:** Universidad de Chile

**Institución coordinadora Europea:** United Nations Environment Programme  
**País de la institución coordinadora:** Reino Unido  
**Sitio Web de la Institución:** [www.unep.org](http://www.unep.org)  
**Nombre coordinador:** Mark Collins  
**Correo electrónico coordinador:** [mark.collins@unep-wcmc.org](mailto:mark.collins@unep-wcmc.org)

**Costo total del proyecto:** 1.276.833 Euros  
**Contribución EC al Proyecto:** 1.000.000 Euros  
**Costo total de la participación nacional:** Información no disponible  
**Contribución EC a la participación nacional:** Información no disponible

### **Resumen**

The maintenance of biodiversity in areas subjected to human use is a major challenge to sustainable development. This project aims to identify sustainable approaches to land use, by analysing the impact of human activity on biodiversity, and by examining the potential for ecological rehabilitation of degraded sites. This will be achieved by multi-disciplinary research in rural areas of Mexico, Chile and Argentina. Research will investigate the key processes influencing biodiversity in native forests subjected to clearance and fragmentation, using field-based, laboratory and computer modelling approaches. This will enable the impact of different land use options on biodiversity to be predicted, and will enable indicators of sustainable development and ecological rehabilitation to be identified. The project will generate scientific information and practical tools for the sustainable development of native forest landscapes by local communities.

## **Otras Instituciones Participantes**

Umweltforschungszentrum Leipzig-Halle Gmbh (Alemania)

Universidad Nacional de Comahue (Argentina)

Universidad de Chile (Chile)

Universidad Austral de Chile (Chile)

University of Alcala (España)

El Colegio de La Frontera Sur (México)

Instituto Politecnico Nacional (México)

Institute of Ecology (México)

United Nations Environment Programme (Reino Unido)

## **Characterisation of South American genotypes of bean for optimal use of light under abiotic stress (OP.US.LI)**

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**Fecha de inicio:** 01 de Octubre de 2000  
**Fecha de término:** 31 de Diciembre de 2004  
**Sitio Web del proyecto:** ---  
**Tipo de proyecto:** INCO 2  
**Areas prioritarias:** Investigación para el Desarrollo

**Institución coordinadora Chilena:** Universidad de Chile  
**Sitio Web de la Institución:** <http://www.uchile.cl>  
**Nombre coordinador:** Mario Silva Geneville  
**Correo electrónico coordinador:** [msilva@uchile.cl](mailto:msilva@uchile.cl)

**Institución coordinadora Europea:** University of Sheffield  
**País de la institución coordinadora:** Reino Unido  
**Sitio Web de la Institución:** [www.shef.ac.uk](http://www.shef.ac.uk)  
**Nombre coordinador:** Anne Mallaband  
**Correo electrónico coordinador:** ---

**Costo total del proyecto:** 750.000 Euros  
**Contribución EC al Proyecto:** 750.000 Euros  
**Costo total de la participación nacional:** Información no disponible  
**Contribución EC a la participación nacional:** Información no disponible

### **Resumen**

This project is to contribute to the sustainable improvement in Hazel's bean production in poor and marginal areas of South America. Genotypes able to reach optimum productivity under biotic stress will be selected. The main factor to be studied will be solar radiation. The project will be focused on the identification of genotypes with different capacities to use solar radiation in photosynthesis and in photomorphogenesis. Both, beneficial and detrimental responses to intensities and spectral ranges of radiation (including UV-B) will be studied in combination with water, temperature and nutritional stress. Cultivars will be selected and characterised from germless collections of the University of Chilean the gene bank of the International Center for Tropical Agriculture (CIAT) at Colombia. New genotypes will also be collected from areas of different latitude and altitude where there is widely differing exposure to these stress factors.

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## Otras Instituciones Participantes

Albert-Ludwigs-Universitaet Freiburg (Alemania)

Universidad Mayor de San Simon (Bolivia)

Universidad de Chile (Chile)

Universita degli Studi di Pisa (Italia)

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## **Collaborative Learning and Distributed Experimentation (COLDEX)**

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**Fecha de inicio:** 01 de Junio de 2002  
**Fecha de término:** 31 de Mayo de 2005  
**Sitio Web del proyecto:** <http://www.coldex.info/>  
**Tipo de proyecto:** Sociedad de la Información  
**Areas prioritarias:** Futuro de las e-Learning

**Institución coordinadora Chilena:** Universidad de Chile  
**Sitio Web de la Institución:** [www.uchile.cl](http://www.uchile.cl)  
**Nombre coordinador:** Nelson Baloian  
**Correo electrónico coordinador:** [nbaloian@dcc.uchile.cl](mailto:nbaloian@dcc.uchile.cl)  
**Otras instituciones chilenas participantes:** Universidad Catolica del Norte

**Institución coordinadora Europea:** Universitaet Duisburg-Essen  
**País de la institución coordinadora:** Alemania  
**Sitio Web de la Institución:** [www.uni-duisburg-essen.de](http://www.uni-duisburg-essen.de)  
**Nombre coordinador:** Heinz-Ulrich Hoppe  
**Correo electrónico coordinador:** [Hoppe@informatik.uni-duisburg.de](mailto:Hoppe@informatik.uni-duisburg.de)

**Costo total del proyecto:** 2.200.983 Euros  
**Contribución EC al Proyecto:** 1.321.682 Euros  
**Costo total de la participación nacional:** Información no disponible  
**Contribución EC a la participación nacional:** Información no disponible

### **Resumen**

CoLDex aims at developing and using new IT approaches and computational tools to foster scientific experimentation, modelling and simulation in distributed collaborative settings in an inter-cultural (European-Latin American) community of learners. Our efforts will result in the creation of innovative pedagogical scenarios. A common denominator for the learning domain is the study of visual and other perceptual phenomena, including astronomical and seismic measurements, from both a scientific and a subjective experiential perspective. The project will start with local learning communities sharing a rich everyday context. The target groups will range from higher secondary education to academic beginners. Computer-mediated collaboration tools will contribute to forming integrated synchronous/asynchronous access to a "group memory" on different levels.

### **Otras Instituciones Participantes**

Universitaet Duisburg-Essen (Alemania)  
Universitaet Des Saarlandes (Alemania)

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Universidad Catolica del Norte (Chile)  
Universidad de Chile (Chile)  
Fundacion Universidad Empresa (España)  
Universidad Politecnica de Madrid (España)  
Instituto de Engenharia de Sistemas e Computadores (Portugal)  
Vaexjoe Universitet (Suecia)

## Control of epiphytism in gracilaria chilensis mariculture (EPIFIGHT)

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**Fecha de inicio:** 01 de Octubre de 2001  
**Fecha de término:** 01 de Abril de 2005  
**Sitio Web del proyecto:** ---  
**Tipo de proyecto:** INCO 2  
**Areas prioritarias:** Investigación para el Desarrollo

**Institución coordinadora Chilena:** Pontificia Universidad Catolica de Chile  
**Sitio Web de la Institución:** [www.puc.cl](http://www.puc.cl)  
**Nombre coordinador:** Renato Albertini  
**Correo electrónico coordinador:** [ralbertini@bio.puc.cl](mailto:ralbertini@bio.puc.cl)

**Institución coordinadora Europea:** Centre National de la Recherche Scientifique  
**País de la institución coordinadora:** Francia  
**Sitio Web de la Institución:** [www.cnrs.fr/](http://www.cnrs.fr/)  
**Nombre coordinador:** Alain Marchal  
**Correo electrónico coordinador:** [alain.marchal@dr14.cnrs.fr](mailto:alain.marchal@dr14.cnrs.fr)

**Costo total del proyecto:** 1.334.165 Euros  
**Contribución EC al Proyecto:** 899.741 Euros  
**Costo total de la participación nacional:** Información no disponible  
**Contribución EC a la participación nacional:** Información no disponible

### Resumen

Cultivation of the marine red alga *Gaillardia chilensis* for the production of agar hydrocolloids is a major asset of Chilean aquaculture. More than 500 farming operations are established across the country, mainly in northern (Regions Iliad IV) and southern (Region X) Chile, with annual yields of over 120,000 wet metric tons. *Gaillardia* is propagated vegetative (i.e. no spores are used to re-stock the farms), on the form of phallus bundles planted or fastened to sand-filled plastic tubes on the sea bottom. A main nuisance to farmers is the widespread occurrence of infections by algal epiphytes, which negatively affect the crop growth rate, lead to biomass losses due to increased drag and result in products with lower economic value. There has been no attempt to develop *Gaillardia* strains with unproved resistance against epiphytes and no practical method to control epiphytes is available today.

### Otras Instituciones Participantes

Universidad Nacional del Sur (Argentina)  
Max-Planck-Gesellschaft Zur Foerderung Der Wissens (Alemania)  
Pontificia Universidad Catolica de Chile (Chile)  
Centre National de la Recherche Scientifique (Francia)

## **Discussion group on environmental policy instruments in Latin American and European liberalized electricity markets (GRENELEM PROJECT)**

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**Fecha de inicio:** 01 de Septiembre de 2001

**Fecha de término:** 20 de Febrero de 2004

**Sitio Web del proyecto:** ---

**Tipo de proyecto:** INCO 2

**Areas prioritarias:** Investigación para el Desarrollo

**Institución coordinadora Chilena:** Universidad de Chile

**Sitio Web de la Institución:** [www.uchile.cl](http://www.uchile.cl)

**Nombre coordinador:** Dr. Raúl O'ryan

**Correo electrónico coordinador:** [roryan@dii.uchile.cl](mailto:roryan@dii.uchile.cl)

**Institución coordinadora Europea:** Universidad Pontificia Comillas

**País de la institución coordinadora:** España

**Sitio Web de la Institución:** [www.upcomillas.es](http://www.upcomillas.es)

**Nombre coordinador:** Dr. Pedro Linares

**Correo electrónico coordinador:** [pedro.linares@iit.upco.es](mailto:pedro.linares@iit.upco.es)

**Costo total del proyecto:** 207.318 Euros

**Contribución EC al Proyecto:** 190.118 Euros

**Costo total de la participación nacional:** Información no disponible

**Contribución EC a la participación nacional:** Información no disponible

### **Resumen**

This proposal for a Concerted Action has as major objective the improvement of the design of policies for the promotion of environmentally friendly electricity systems in Europe and South America, while allowing for liberalisation and growth of this sector. Through a series of meetings, the knowledge and experiences from experts from different countries in these regions will be exchanged, and recommendations will be provided on the best practices to assess the environmental impact of liberalised electricity systems, to incorporate environmental aspects into electricity planning and operation, and to devise policy instruments for improving the environmental performance of liberalised electricity systems. The inclusion in the consortium of regulatory agencies from the countries implied will ensure an efficient feedback from the potential end-users of the conclusions of the Concerted Action, and a quick dissemination of the results. The main objective of this concerted action is the improvement of the design of policies that promote an economically efficient and environment-friendly development of liberalised electricity systems, suited to the requirements of the different countries or regions in Europe and South America. This will require the accomplishment of different sub-objectives, such as:

The review of the effects of liberalisation on the environmental impact of electricity systems, the analysis and comparison of methodologies for the assessment of the environmental impact of liberalised electricity systems, the exchange of experiences on the incorporation of environmental aspects into liberalised electricity markets.

The objective expressed before will be accomplished through a series of meetings, in which a strong interaction and exchange of information between the partners involved in the concerted action will be fostered. Each of the partners involved in the concerted action will prepare documents with their experiences and knowledge, to be exchanged and discussed at the meetings. After the meeting, a report will be written by the leading team summarising these experiences, and the conclusions reached. The first meeting will review the effects of liberalisation on the environmental performance of electricity systems. The partners will present their views on how the different liberalisation approaches adopted in the regions under study have affected or are expected to affect the environmental impact of electricity systems, according to the new conditions created. A second meeting will analyse and compare the different methodologies existing for the assessment of the environmental performance of electricity systems, and how they may be adapted or not to the liberalised market conditions. Methodologies currently in use in South America and Europe will be presented, and their major advantages and disadvantages for the different geographical and political contexts will be discussed. The outcome of this meeting will be an agreement on recommendations on the most appropriate tools to be used. All the previously cited information will be used in a third meeting in order to analyse how to incorporate environmental aspects into liberalised electricity systems, according to the different legal or social context of each country, and to the different characteristics of electricity systems regarding their environmental impact. The experiences of the research and regulatory institutions involved in the concerted action will be exchanged, and a set of recommendations will be produced. Finally, the last meeting will try to combine all the knowledge exchanged in past meetings, in order to produce a set of recommendations for decision-makers both in South America and Europe about the consequences on the environment and on the economy of the liberalisation of the electricity sector, and about the most adequate policies to be pursued in order to attain a sustainable development of the electricity sector.

The major outcome of the concerted action will be a set of recommendations for decision-makers in South America and Europe on the consequences on the environment and on the economy of the liberalisation of the electricity sector, and about the most adequate policies to be pursued in order to attain a sustainable development in this sector. In the long term, this concerted action envisages to create a strong network of research and regulatory institutions which will allow for the development of tools to facilitate decision-makers achieve sustainable development in the electricity sector.

### **Otras Instituciones Participantes**

Universitaet Stuttgart (Alemania)

Ente Nacional Regulator de la Electricidad (Argentina)

Comision Nacional de Energia Atomica (Argentina)

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Universidad de Chile (Chile)  
Centro de Desenvolvimento da Tecnologia Nuclear (Brasil)  
Universidad Pontificia Comillas (España)  
Comision National de Energia (España)  
Vrije Universiteit Amsterdam (Países Bajos)  
Pan American Center for Sanitary Engineering and Environmental Sciences (Perú)

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## **Estuaries and coastal areas Basis and tools for a more sustainable development (ECOSUD)**

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**Fecha de inicio:** 01 de Enero de 2002

**Fecha de término:** 31 de Diciembre de 2004

**Sitio Web del proyecto:** <http://lim050.upc.es/eng/r+d/pro/ecosud/>

**Tipo de proyecto:** INCO 2

**Areas prioritarias:** Investigación para el Desarrollo

**Institución coordinadora Chilena:** Centro Interamericano para el Desarrollo de Ecosistemas Sustentables S.A.

**Sitio Web de la Institución:** <http://www.icsed.org>

**Nombre coordinador:** Max F. Agüero

**Correo electrónico coordinador:** [centro@icsed.org](mailto:centro@icsed.org)

**Institución coordinadora Europea:** Centro Internacional de Investigación de los Recursos Costeros

**País de la institución coordinadora:** España

**Sitio Web de la Institución:** <http://lim-ciirc.upc.es>

**Nombre coordinador:** Agustin Sanchez-Arcilla

**Correo electrónico coordinador:** [agustin.arcilla@upc.es](mailto:agustin.arcilla@upc.es)

**Costo total del proyecto:** 1.131.401 Euros

**Contribución EC al Proyecto:** 850.000 Euros

**Costo total de la participación nacional:** Información no disponible

**Contribución EC a la participación nacional:** Información no disponible

### **Resumen**

The first general objective of the project is to improve the existing knowledge on the different processes involved in estuaries and coastal waters use and degradation, with a view to increasing the reliability of predictive tools and defining a set of indicators in order to allow the design of effective policy interventions for a more sustainable development of these areas. This will be achieved by studying the different processes (physical, biological, social, economic) determining water quality in two different and complementary aquatic environments: one estuarine lagoon and one estuarine river and their adjacent coastal areas. Both sites are representative of a wide variety of Latin American and European coastal environments. The first case chosen is in the Patos lagoon, located in the South of Brazil and the second one is the estuary of the Júcar river in the Spanish Mediterranean Coast.

The second general objective of the project is to produce suitable strategies and criteria to be used in the planning and development (i.e. satisfying acceptability criteria in economic, environmental and social terms) of these areas by using modelling tools upgraded with the knowledge gained from these two case studies. These tools will be suitably tested and validated using collected data from both systems. The models will focus on the transport and "fate" of suspended matter, bacteria, nutrients and heavy metals and the associated economic and social impacts. From this advancement in knowledge and predictive capabilities a set of sustainability indicators will be derived.

### **Otras Instituciones Participantes**

Universidad Nacional de Córdoba (Argentina)

Fundação Universidade Federal do Rio Grande (Brasil)

Inter-American Centre for Sustainable Ecosystems Development (Chile)

Centro Internacional de Investigación de los Recursos Costeros (España)

Universidad Politécnica de Valencia (España)

HR Wallingford (Reino Unido)

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## Improved diagnosis, drug resistance detection and control of tuberculosis in Latin America

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**Fecha de inicio:** 01 de Enero de 2002  
**Fecha de término:** 30 de Septiembre de 2005  
**Sitio Web del proyecto:** ---  
**Tipo de proyecto:** INCO 2  
**Areas prioritarias:** Investigación para el Desarrollo

**Institución coordinadora Chilena:** Instituto de Salud Pública de Chile  
**Sitio Web de la Institución:** [www.ispch.cl](http://www.ispch.cl)  
**Nombre coordinador:** Julio Garcia Moreno  
**Correo electrónico coordinador:** ---

**Institución coordinadora Europea:** Institute of Tropical Medicine Prince Leopold  
**País de la institución coordinadora:** Bélgica  
**Sitio Web de la Institución:** [www.itg.be](http://www.itg.be)  
**Nombre coordinador:** Bruno Gryssels  
**Correo electrónico coordinador:** ---

**Costo total del proyecto:** 1.591.549 Euros  
**Contribución EC al Proyecto:** 1.591.549 Euros  
**Costo total de la participación nacional:** Información no disponible  
**Contribución EC a la participación nacional:** Información no disponible

### Resumen

A strategic obstacle to the improvement of tuberculosis (TB) control is the lack of inexpensive and facile techniques that can replace the slow and laborious conventional methods for diagnosing TB and detecting drug resistance. However, there are newer, more appropriate methodologies that warrant further evaluation. This CA will develop, adapt and evaluate some of these promising new tools. It will build upon collaborations that have developed between a network of European researchers and their Latin America colleagues. Preliminary studies by this group have begun to address some of the objectives in this CA, and the work outlined will expand these collaborations to develop useful and appropriate methodologies. This project will test them in multicentred pilot studies, modify them when necessary and run prospective clinical trials in high endemic TB areas for accuracy, cost, ease of implementation and impact on TB control.

### Otras Instituciones Participantes

Instituto Nacional de Enfermedades Infecciosas (Argentina)  
National Institute of Agricultural Research (Argentina)  
Servicio Nacional de Sanidad y Calidad Agroalimentaria (Argentina)

Dr. Cetrangolo Hospital (Argentina)  
Institute Of Tropical Medicine Prince Leopold (Bélgica)  
Instituto Nacional de Laboratorios de Salud (Bolivia)  
Fundacao Oswaldo Cruz (Brasil)  
Fundacao Universidade do Rio Grande (Brasil)  
Federal University of Rio de Janeiro (Brasil)  
Instituto Biologico (Brasil)  
Instituto Adolfo Lutz (Brasil)  
Instituto de Salud Pública de Chile (Chile)  
Corporacion para Investigaciones Biologicas (Colombia)  
Instituto Nacional de Salud (Colombia)  
Corporacion Corpogen (Colombia)  
Instituto de Medicina Tropical "Pedro Kouri" (Cuba)  
Hospital Vozandes Quito (Ecuador)  
Universidad de Zaragoza (España)  
Universidad Autonoma de Madrid (España)  
Universidad Nacional Autonoma de Mexico (México)  
Escuela Nacional de Ciencias Biologicas (México)  
Centro Nacional de Diagnostico y Referencia (Nicaragua)  
National Institute of Public Health and Environment (Países Bajos)  
Erasmus Universiteit Rotterdam (Países Bajos)  
Instituto Venezolano de Investigaciones Cientificas (Venezuela)  
Universidad Central de Venezuela (Venezuela)

## **Innovative approaches to understand complex microbial communities for eco-engineering the degradation of herbicides in stressed agricultural soils (ACCESS)**

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**Fecha de inicio:** 01 de Noviembre de 2002

**Fecha de término:** 31 de Octubre de 2005

**Sitio Web del proyecto:** ---

**Tipo de proyecto:** INCO 2

**Areas prioritarias:** Investigación para el Desarrollo

**Institución coordinadora Chilena:** Pontificia Universidad Catolica de Chile

**Sitio Web de la Institución:** [www.puc.cl](http://www.puc.cl)

**Nombre coordinador:** Nicolas Velasco

**Correo electrónico coordinador:** ---

**Otras instituciones chilenas participantes:** Universidad Tecnica Federico Santa Maria

**Institución coordinadora Europea:** Helmholtz-Zentrum für Infektionsforschung

**País de la institución coordinadora:** Alemania

**Sitio Web de la Institución:** [www.gbf.de](http://www.gbf.de)

**Nombre coordinador:** Rudi Balling

**Correo electrónico coordinador:** [balling@gbf.de](mailto:balling@gbf.de)

**Costo total del proyecto:** 1.829.313 Euros

**Contribución EC al Proyecto:** 1.353.937 Euros

**Costo total de la participación nacional:** Información no disponible

**Contribución EC a la participación nacional:** Información no disponible

### **Resumen**

We will generate a knowledge base for the rational eco-engineering of sites polluted with recalcitrant herbicides atrazine, 2,4-D and analogues. To understand the roles of complex microbial communities for degradation processes, and adaptabilities of communities to stress conditions we will develop, based on detailed metabolic information, molecular biology tools, to study community functions, interactions and adaptations. DNA arrays for phylogenetic, catabolic and stress studies will be designed and optimised. Information recruited in model systems will be used in systems of increasing complexity, aiming at the rational manipulation and optimisation of degradative activities, including the contribution of rhizosphere microbial communities.

## **Otras Instituciones Participantes**

Helmholtz-Zentrum Für Infektionsforschung (Alemania)

Universidad de Buenos Aires (Argentina)

Pontificia Universidad Católica de Chile (Chile)

Universidad Técnica Federico Santa María (Chile)

Perkin Elmer Ltda (Chile)

Consejo Superior de Investigaciones Científicas (España)

Macaulay Land Use Research Institute (Reino Unido)

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## Latin America thematic network on bioenergy (LAMNET)

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**Fecha de inicio:** 01 de Enero de 2002

**Fecha de término:** 31 de Diciembre de 2004

**Sitio Web del proyecto:** <http://www.bioenergy-lamnet.org/>

**Tipo de proyecto:** INCO 2

**Areas prioritarias:** Investigación para el Desarrollo

**Institución coordinadora Chilena:** Universidad Catolica de Valparaiso

**Sitio Web de la Institución:** [www.ucv.cl](http://www.ucv.cl)

**Nombre coordinador:** Sergio Marshall

**Correo electrónico coordinador:** [smarshal@ucv.cl](mailto:smarshal@ucv.cl)

**Institución coordinadora Europea:** Wirtschaft und Infrastruktur Gmbh & Co Planungs Kg

**País de la institución coordinadora:** Alemania

**Sitio Web de la Institución:** [www.wip-munich.de](http://www.wip-munich.de)

**Nombre coordinador:** Peter Helm

**Correo electrónico coordinador:** [peter.helm@wip-munich.de](mailto:peter.helm@wip-munich.de)

**Costo total del proyecto:** 999.959 Euros

**Contribución EC al Proyecto:** 999.959 Euros

**Costo total de la participación nacional:** Información no disponible

**Contribución EC a la participación nacional:** Información no disponible

### Resumen

Good management of resources, alleviating poverty and improving the socio-economic conditions of living are key objectives for research and development efforts in Developing Countries and the EU partnership with Developing Countries. In order to promote the sustainable use of biomass in Latin America it is the general objective of this project to establish a network of Knowledge Centres (Universities and R&D Institutes) and SMEs from Latin America and the European Union. For this purpose a number of partners with excellent expertise in the field of biomass are selected and an effective co-operation between the partners is assured. The main focus of the project will thereby be the development of policy options for the promotion of decentralised biomass energy production. The main objective of LAMNET is to establish a trans-national forum for the promotion of sustainable use of biomass in Latin America and other emerging countries.

### Otras Instituciones Participantes

Wirtschaft und Infrastruktur Gmbh & Co Planungs Kg (Alemania)

Institut fuer Solare Energieversorgungstechnik E.V. (Alemania)

Sustainable Solutions and Innovations Consulting (Alemania)  
Federal Research Centre for Agriculture (Alemania)  
Instituto de Desarrollo y Diseño (Argentina)  
Vogelbusch GmbH (Austria)  
European Biomass Industry Association (Bélgica)  
Berwin Leighton Paisner (Bélgica)  
Centro Nacional De Referencia De Biomassa (Brasil)  
Fundacao Coppetec (Brasil)  
Cooperativa De Productos De Cana, Acucar E Alcool Do Estado De Sao Paulo Ltda (Brasil)  
Jzl Consultoria Ltd. (Brasil)  
Uniao Da Agroindustria Canavieira Do Estado De Sao Paulo (Brasil)  
Universidad Catolica De Valparaiso (Chile)  
Chinese Renewable Energy Industries Association (China)  
Institute Of Bio Energy (China)  
Shenyang Agricultural Univerity (China)  
Centre for Energy And Environment Protection (China)  
Ministry Of Science and Technology (China)  
China Association of Rural Energy Industry (China)  
Corporation for the Industrial Development Of Biotechnology And Clean Production (Colombia)  
Centro De Investigaciones De La Economia Mundial (Cuba)  
Ministerio Del Acuzar (Cuba)  
Ministerio De Energia Y Minas (Ecuador)  
Instituto Tecnologico Y De Energias Renovables Sa (España)  
Direccio General D'economia - Govern Balear (España)  
Martezo S.A.R.L. (Francia)  
Agricultural University Of Athens (Grecia)  
Centre for Renewable Energy Sources (Grecia)  
Energia, Trasporti, Agricoltura (Italia)  
Ministry Of Environment (Italia)  
Universita Degli Studi Di Pisa (Italia)  
Agriconsulting S.P.A. (Italia)  
Ecotre Systems S.R.L. (Italia)  
Kemyx S.P.A (Italia)  
University Of Florence (Italia)  
Università Degli Studi Di Sassari (Italia)  
Universidad Nacional Autonoma De Mexico (México)  
Central Motzorongo S.A. De C.V. (México)  
Grupo Joao Ferreira Dos Santos (Mozambique)  
Universidade Nova De Lisboa (Portugal)  
Companhia Comercial Jofesa Sa (Portugal)  
Millenium Biofuel Corporation (Sud Africa)  
Illovo Sugar Ltd. (Sud Africa)  
Service De L'energie En Milieu Sahelien (Senegal)  
Energidalen I Sollefteaa Ab (Suecia)  
Bioalcohol Fuel Foundation (Suecia)  
Fundacion Momento De La Gente (Venezuela)

## Marker assisted selection for table grape (MASTER)

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**Fecha de inicio:** 01 de Noviembre de 2001

**Fecha de término:** 30 de Abril de 2005

**Sitio Web del proyecto:** ---

**Tipo de proyecto:** INCO 2

**Areas prioritarias:** Investigación para el desarrollo

**Institución coordinadora Chilena:** Instituto de Investigaciones Agropecuarias

**Sitio Web de la Institución:** [www.inia.cl](http://www.inia.cl)

**Nombre coordinador:** Carlos Muñoz

**Correo electrónico coordinador:** ---

**Institución coordinadora Europea:** Consejo Superior de Investigaciones Cientificas

**País de la institución coordinadora:** España

**Sitio Web de la Institución:** [www.csic.es](http://www.csic.es)

**Nombre coordinador:** Rolf Tarrach Siegel

**Correo electrónico coordinador:** ---

**Costo total del proyecto:** 1.288.407 Euros

**Contribución EC al Proyecto:** 749.560 Euros

**Costo total de la participación nacional:** Información no disponible

**Contribución EC a la participación nacional:** Información no disponible

### Resumen

MASTER is an international co-operation program aimed to develop tested molecular tools for rapid and cost-efficient application of breeding programs in table grapes (*Vitis vinifera* L.) Its final goal is to facilitate and accelerate the process of development of new table grapes varieties with new features in the participating Institutions. MASTER is focused on fruit quality traits. It will produce fundamental and robust information on the genetic control of seedless ness, berry size, Muscat flavour and ripening date. It will generate informative, easy to use molecular markers closely linked to the major genetic determinants of those quantitative traits and provide information on the predictive value of those markers. These scientific and technological results are expected to improved the competitively of table grapes breeding programs in the participating countries.

### Otras Instituciones Participantes

National Institute of Agricultural Research (Argentina)

Instituto de Investigaciones Agropecuarias (Chile)

Consejo Superior de Investigaciones Cientificas (España)

Institut National de la Recherche Agronomique (Francia)

Istituto Agrario di San Michele All'adige (Italia)

## Opet Associate for the Mercosur Region (OPET MERCOSUR)

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**Fecha de inicio:** 02 de Abril de 2001

**Fecha de término:** 01 de Junio de 2002

**Sitio Web del proyecto:** ---

**Tipo de proyecto:** Energía, Medio Ambiente y Desarrollo Sustentable

**Areas prioritarias:** Anticipación a los cambios tecnológicos

**Institución coordinadora Chilena:** United Nations Economic Commission for Latin America and the Caribbean

**Sitio Web de la Institución:** [www.eclac.org](http://www.eclac.org)

**Nombre coordinador:** Axel Dourojeanni Ricordi

**Correo electrónico coordinador:** ---

**Costo total del proyecto:** 640.000 Euros

**Contribución EC al Proyecto:** 320.000 Euros

### Resumen

The objective of this project is to promote modern European state-of-the-art energy technologies in the Mercosur region. The Mercosur countries are committed to an ambitious process of economic integration and have entered in negotiations with the European Union of a free trade agreement. The Mercosur region presents excellent conditions for the transfer and market uptake of European energy technologies. OPET Mercosur will act as a focal point of this process. In cooperation with relevant market actors in the Mercosur countries, OPET Mercosur will identify specific market opportunities for the implementation of efficient technologies, develop 'delivery mechanisms' for specific technologies and markets ('product-market combinations') and mobilize Government institutions, industrial and consumers' organisations, in order to remove barriers and foster market introduction. OPET Mercosur will serve as a focal point for members of the European OPET network.

### Otras Instituciones Participantes

No hay otras instituciones participando en el proyecto.

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## **Regeneration of semiarid plant communities: the role of el nino southern oscillation and herbivory control (ELNINO)**

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**Fecha de inicio:** 01 de octubre de 2001  
**Fecha de término:** 30 de septiembre de 2004  
**Sitio Web del proyecto:** <http://www.biouls.cl/enso/>  
**Tipo de proyecto:** INCO 2  
**Areas prioritarias:** Investigación para el desarrollo

**Institución coordinadora Chilena:** Universidad de La Serena  
**Sitio Web de la Institución:** [www.userena.cl](http://www.userena.cl)  
**Nombre coordinador:** Julio R. Gutiérrez  
**Correo electrónico coordinador:** [jgutierrez@userena.cl](mailto:jgutierrez@userena.cl)

**Institución coordinadora Europea:** WAGENINGEN UNIVERSITY  
**País de la institución coordinadora:** Países Bajos  
**Sitio Web de la Institución:** [www.wageningenuniversiteit.nl](http://www.wageningenuniversiteit.nl)  
**Nombre coordinador:** Dr. Ir. G.M.J. (Frits) Mohren  
**Correo electrónico coordinador:** [Frits.Mohren@wur.nl](mailto:Frits.Mohren@wur.nl)

**Costo total del proyecto:** 650.000 Euros  
**Contribución EC al Proyecto:** 650.000 Euros  
**Costo total de la participación nacional:** Información no disponible  
**Contribución EC a la participación nacional:** Información no disponible

### **Resumen**

The project aims to study the interactive effects of herbivory and rainfall variation associated to El Niño Southern Oscillation on tree and shrub seedling establishment on semiarid ecosystems. The project works on two complementary research lines: 1) field experiments in which herbivory and water availability are controlled, and 2) analysis of the relationship between historical tree recruitment episodes and climatic variation using tree-ring analysis. The project will produce regression models that predict seedling survival of key tree species as a function of herbivory and water conditions. These models will be used to set up restoration guidelines for degraded semiarid ecosystems. The guidelines will be discussed in a workshop open to researchers and decision-makers from institutions and agencies working in degraded dry ecosystems. As a result of that, the guidelines will be adjusted and distributed electronically to regional and international environmental organizations and institutions.

Semiarid regions throughout the world have lost a major part of their woody vegetation and biodiversity due to the effects of wood cutting, cattle grazing, and subsistence agriculture. The resulting state is typically used for cattle production but the productivity of this impoverished system is often very low and erosion of the unprotected soil is a common problem. Restoration of the original, relatively lush, state dominated by trees and shrubs has proven to be very difficult. Experimental work indicates that recruitment of woody species is likely to be the bottleneck for recovery. Seedlings are easily eliminated by herbivores and are also much more sensitive to drought than large shrubs and trees. Under dry conditions, seedlings are often found to survive only under the shade of adults where desiccation, and sometimes also herbivory, are less severe. Consequently, even in regions where seedling establishment is possible under the protective cover of existing woody vegetation, recolonization of areas have lost their woody vegetation may be impossible.

The usually dry conditions of many semiarid regions throughout the world are periodically interrupted by dramatic increase in rainfall associated with the El Niño Southern Oscillation (ENSO) phenomenon. These events can be seen as large-scale natural experiments showing the effect of enhanced moisture conditions on natural plant communities. We will use tree ring analysis to reconstruct the outcome of those past events on recruitment and growth of woody plants. We also plan controlled field experiments to explore the way in which the probability of seedling establishment and survival of key species is related to water conditions, herbivory, and shade cover by adult shrubs.

These results will allow the development of economic and innovative approaches to the rehabilitation and sustainable use of semiarid ecosystems, tailored to local conditions. For example, we expect to find that in certain areas temporal exclusion of herbivores during predicted El Niño episodes might be sufficient to allow the successful establishment of woody seedlings and trigger the natural recovery of degraded ecosystems. This idea to use El Niño events as windows of opportunity, is of major relevance for most dry areas in the world and could have a large impact on the way we implement reforestation programs. Our project is in line with the priorities established in the International Convention to Combat Desertification and the Earth Summits.

The work will also contribute to our understanding of the potential effects of global climate change on semiarid regions. There is serious concern that global changes in climate may cause changes in the frequency and duration of the ENSO phases. A better understanding of how natural plant communities respond to the ENSO phases is crucial to predict the potential impacts of global change on semiarid vegetation.

### **Otras Instituciones Participantes**

Universidad de La Serena (Chile)

Centre de Recerca Ecologia i Aplicacions Forestals (España)

Wageningen University (Países Bajos)

Universidad Nacional de San Agustín de Arequipa (Perú)

## **Sustainable economic utilisation of wild south american camelids: strategies for improving rural productivity in pastoral communities in Latin America (MACS)**

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**Fecha de inicio:** 01 de Noviembre de 2001

**Fecha de término:** 31 de Octubre de 2005

**Sitio Web del proyecto:** ---

**Tipo de proyecto:** INCO 2

**Areas prioritarias:** Investigación para el desarrollo

**Institución coordinadora Chilena:** Pontificia Universidad Catolica de Chile

**Sitio Web de la Institución:** [www.puc.cl](http://www.puc.cl)

**Nombre coordinador:** Dr. Cristian Bonacic

**Correo electrónico coordinador:** [faunaaustralis@gmail.com](mailto:faunaaustralis@gmail.com)

**Institución coordinadora Europea:** Macaulay Land Use Research Institute

**País de la institución coordinadora:** Reino Unido

**Sitio Web de la Institución:** [www.macaulay.ac.uk](http://www.macaulay.ac.uk)

**Nombre coordinador:** Jerry Laker

**Correo electrónico coordinador:** [j.laker@mluri.sari.ac.uk](mailto:j.laker@mluri.sari.ac.uk)

**Costo total del proyecto:** 1.317.364 Euros

**Contribución EC al Proyecto:** 900.000 Euros

**Costo total de la participación nacional:** Información no disponible

**Contribución EC a la participación nacional:** Información no disponible

### **Resumen**

The research aims to increase the productive base of communities in the high mountain and steppe ecosystems in Latin America by production of high quality textile fibre from the wild South American camelids - the vicuna and the guanaco. Results are guidelines for best practice for sustainable economic utilisation of wild South American camelids in Peru, Bolivia, Chile and Argentina. Information will be disseminated to producers, the European textile industry, rural communities, and regional policy makers through publication and by establishing network of researchers and experts. The project involves primary research on economics, ecology, animal welfare, management of genetic diversity, and reproduction, and applied research to develop guidelines for best practice, policy recommendations, scientific networking, and environmental education.

The commercial harvest of luxury textile fibres from wild camelids, the vicuña and guanaco, in the Andes has been practised for centuries. Pre-1950s much of the fibre sold was traded in the form of pelts from shot animals. This unsustainable practice ended in a strict trade ban

and strong conservation measures that have lasted some 30 years. As some populations regain their former abundance, commercial harvesting of certain populations is once again possible, and there are many recent examples of management systems being set up for live shearing in Peru, Argentina, Chile and Bolivia.

During the time of strict conservation there built up a respectable body of scientific research on camelid biology. The MACS project will provide important information that is required urgently to underpin the design of the systems used for the exploitation of fibre from the wild camelids during this critical phase as policy moves from being conservation orientated to allowing limited exploitation.

There are 2 main aims:

1. To develop guides for best practice in systems for sustainable economic utilisation of wild South American camelids – the vicuña and guanaco - in Peru, Bolivia, Chile and Argentina, for the production of luxury textile fibres.
2. To disseminate this information to producers, the European textile industry, rural communities, and regional policy makers through publications and by establishing a network of researchers and experts.

### **Otras Instituciones Participantes**

Justus-Liebig-University of Giessen (Alemania)

Universidad Nacional de Lujan (Argentina)

Pontificia Universidad Catolica de Chile (Chile)

Universitat de Valencia (España)

Coordinadora de Investigacion y desarrollo de Camelidos Sudamericanos (Perú)

Macaulay Land Use Research Institute (Reino Unido)

Johnston's of Elgin Ltd. (Reino Unido)

University of Oslo (Noruega)

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## The core European bioinformatics research infrastructure in the life sciences (EMBCORE)

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**Fecha de inicio:** 01 de Diciembre de 2001

**Fecha de término:** 30 de noviembre de 2004

**Sitio Web del proyecto:** ---

**Tipo de proyecto:** Calidad de Vida

**Areas prioritarias:** Apoyo a las Infraestructuras de Investigación

**Institución coordinadora Chilena:** Universidad de Chile

**Sitio Web de la Institución:** [www.uchile.cl](http://www.uchile.cl)

**Nombre coordinador:** Jose-Miguel Piquer

**Correo electrónico coordinador:** [jpiquer@nic.cl](mailto:jpiquer@nic.cl)

**Institución coordinadora Europea:** Stichting Katholieke Universiteit

**País de la institución coordinadora:** Países Bajos

**Sitio Web de la Institución:** <http://www.umcn.nl/overhetumc/>

**Nombre coordinador:** Wendelaar Bonga

**Correo electrónico coordinador:** [sjoerd.wendelaar@science.ru.nl](mailto:sjoerd.wendelaar@science.ru.nl)

**Costo total del proyecto:** 1.000.000 Euros

**Contribución EC al Proyecto:** 1.000.000 Euros

**Costo total de la participación nacional:** Información no disponible

**Contribución EC a la participación nacional:** Información no disponible

### Resumen

Bio informatics is the science of managing and analysing biological information. Since 1988 there has been a strong European collaboration of currently 29 National and 8 Specialist bio informatics research nodes with over 32K users: the Embed, coordinating support, training and bio informatics research in life sciences. While others, like EBI and NCBI, offer general use services, an Embed node focuses on specific user needs, provides computational tools needed and supports in national language. Coordination meetings, conferences and thematic discussion lists supervised by leading bio informatics experts, will catalyse the transfer of expertise to the user. A common web portal provides access to the over 100 individual bio informatics servers within Embed. End-user meetings and continuous user polling monitor feedback and produce discussion papers for science policy makers. An electronic and a hard copy journal disseminate the suggestions along with in depth bio informatics reviews.

## Otras Instituciones Participantes

Lion Bioscience AG (Alemania)  
German Cancer Research Center (Alemania)  
Research Center for Environment and Health (Alemania)  
Entigen Pty Ltd (Australia)  
University Of Vienna (Austria)  
Universite Libre De Bruxelles (Bélgica)  
Universidad De Chile (Chile)  
Beijing University (China)  
National Research Council of Canada (Canadá)  
Centro De Ingenieria Genetica Y Biotecnolgia (Cuba)  
University Of Aarhus (Dinamarca)  
Consejo Superior De Investigaciones Cientificas (España)  
Moscow State University (Federación Rusa)  
Scientific Computing Ltd (Finlandia)  
Université D'evry - Val D'essonne (Francia)  
Foundation of Research and Technology (Grecia)  
Agricultural Biotechnology Centre (Hungría)  
Centre for Dns Fingerprinting and Diagnostics (India)  
Trinity College Dublin (Irlanda)  
Weizmann Institute of Science (Israel)  
International Centre for Genetic Engineering and Biotechnology (Italia)  
National Research Council of Italy (Italia)  
Centro De Investigacion Sobre Fijacion De Nitrogeno (México)  
University Of Oslo (Noruega)  
Stichting Katholieke Universiteit (Países Bajos)  
Expert Center for Taxonomic Identification (Países Bajos)  
Institute Of Biochemistry and Biophysics (Polonia)  
Fundacao Calouste Gulbenkian (Portugal)  
European Molecular Biology Laboratory (Reino Unido)  
University Of Manchester (Reino Unido)  
Genome Research Ltd. (Reino Unido)  
Medical Research Council (Reino Unido)  
Institute Of Molecular Biology (República Eslovaca)  
Swedish Embnet Node (Suecia)  
Pharmacia Ab (Suecia)  
Swiss Institute Of Bioinformatics (Suiza)  
F. Hoffmann La Roche Ltd (Suiza)  
University of the Western Cape (Sud Africa)  
Reseach Institute for Genetic Engineering and Biotechnology (Turquía)

## The development of a food quality and management system for the control of Mycotoxins in cereal production and processing chains in Latin America south cone countries (MYCOTOX)

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**Fecha de inicio:** 01 de Enero de 2003  
**Fecha de término:** 30 de Septiembre de 2006  
**Sitio Web del proyecto:** <http://mycotox.cirad.fr/>  
**Tipo de proyecto:** INCO 2  
**Areas prioritarias:** Investigación para el desarrollo

**Institución coordinadora Chilena:** Instituto de Investigaciones Agropecuarias  
**Sitio Web de la Institución:** [www.inia.cl](http://www.inia.cl)  
**Nombre coordinador:** Ricardo Madariaga  
**Correo electrónico coordinador:** [rmadaria@inia.cl](mailto:rmadaria@inia.cl)  
**Otras Instituciones Chilenas participantes:** UNIVERSIDAD DE CONCEPCION

**Institución coordinadora Europea:** Centre de Cooperation Internationale en Recherche Agronomique pour le Developpement - CIRAD  
**País de la institución coordinadora:** Francia  
**Sitio Web de la Institución:** <http://www.cirad.fr/>  
**Nombre coordinador:** Nadine Zakhia  
**Correo electrónico coordinador:** [zakhia@cirad.fr](mailto:zakhia@cirad.fr)

**Costo total del proyecto:** 1398325 Euros  
**Contribución EC al Proyecto:** 749814 Euros  
**Costo total de la participación nacional:** Información no disponible  
**Contribución EC a la participación nacional:** Información no disponible

### Resumen

Food Safety and quality is a major research topic due to the increasing concern of consumers with public health related issues, along with the stronger sanitary standards set by the EU for agriproduct importation. Mycotoxin contamination of food and feedstuffs is among the top priority issues regarding human and animal safety, along with the economic losses they are responsible for. Although several mycotoxin surveys have been performed on cereals in the Latin America South Cone countries, the surveillance data are incomplete and widely dispersed. The control of mycotoxins is currently pursued mainly through quality control and regulatory procedures. However, the analytical methods (mainly chromatographic) currently used for mycotoxin determination need sophisticated equipment and trained analysts, which makes them unsuitable for routine on-field assessment. There is an urgent need for other accurate, simple and cost-effective techniques. There is also an urgent need for a systematic/proactive, cost-effective approach towards the control of

mycotoxins throughout the agrifood chains. The proposed project will address the methodological and analytical issues associated with the establishment of a Food Quality Management System (FQMS), for controlling mycotoxins in cereal chains, in Latin America South Cone countries.

Mycotoxin contamination of food and feed stuffs is among the top priority issues regarding human and animal safety. The mycotoxins attract worldwide attention because of the significant economic losses associated with their impact on human health, animal productivity and both domestic and international trade.

The overall objective of the project is to improve the competitiveness of domestically and internationally traded cereals by controlling the occurrence of mycotoxins in maize and wheat products used as human food and animal feed.

### **Otras Instituciones Participantes**

Universidad de Buenos Aires (Argentina)

Universidad Nacional de Lujan (Argentina)

National Institute of Agricultural Research (Argentina)

Empresa Brasileira de Pesquisa Agropecuaria (Brasil)

Ministry Of Agriculture and Supply (Brasil)

Instituto De Investigaciones Agropecuarias (Chile)

Universidad De Concepcion (Chile)

CIRAD (Francia)

Natural Resources International Limited (Reino Unido)

Cooperative Program For The Agri-Food And Agroindustrial Instituto Nacional De Investigacion Agropecuaria (Uruguay)

Technological Development in the Southern Cone (Uruguay)

Technological Laboratory of Uruguay (Uruguay)