

# THE HUMBOLDT INSTITUTE: WHAT WE DO

*Created in 1993, the Alexander von Humboldt Institute for Research on Biological Resources is the biodiversity research arm of Colombia's National Environmental System (SINA). The Institute is a non-profit, mixed institution, which is linked to the Ministry of Environment, Housing and Land Development (MAVDT) but is regulated by private law. Under Colombian law, the Institute is in charge of carrying out, within the country's continental territory, scientific research on biodiversity, including hydrobiological and genetic resources. The Institute also coordinates the Colombian Biodiversity Information System and the development of a national biodiversity inventory.*

## **Why is the Humboldt Institute needed?**

Biodiversity performs a variety of services which are essential for our health and development. This is true not just in the sense of individual species which can be used as food and medicines, but also in that of entire ecosystems which, if they maintain their functionality, regulate our climate, water, and the spread of infectious diseases.

Under the framework of the Convention on Biological Diversity, ratified by Colombia in 1994, the Humboldt Institute generates the knowledge necessary to evaluate the state of Colombia's biodiversity and to inform decisions aimed at its sustainable use.

## **What has the Humboldt Institute achieved to date?**

The Institute has generated a range of biodiversity knowledge and information tools. For example, the Red Books series on threatened fauna and flora have contributed to the identification of protection and management needs. In addition, the Colombian Biodiversity Information System (SiB) makes available scientific information, mainly on species and ecosystems, which responds to the demands of researchers, decision-makers and the general public. The Institute also developed a research program in bio-commerce opportunities, which led to the creation of Colombia's Bio-commerce Fund ([www.fondobiocomercio.com](http://www.fondobiocomercio.com)).

In terms of contributing to decision-making, the Institute participated in the construction of the National Biodiversity Policy (1996), and is currently supporting the development of a new version of the policy. It has worked with the MAVDT, regional environmental authorities, indigenous and Afro-Colombian communities and different economic sectors to encourage sustainable biodiversity management.

## **How is the Humboldt Institute supporting the International Year of Biodiversity 2010?**

The Institute is at the forefront of activities to mark 2010 in Colombia, together with a national Directive Committee which includes the MAVDT, the National Planning Department (DNP), the National Parks Unit (UAESPNN), and the Association of Regional Autonomous Corporations and Sustainable Development Corporations (Asocars).

## **How does the Humboldt Institute interact with other research institutes in Colombia?**

There are four other research institutes in Colombia's National Environmental System (SINA): the IDEAM, which is responsible for hydrological and meteorological information and for studies on the use and management of Colombia's biophysical resources; the INVEMAR, which carries out research into marine and oceanic biodiversity; and the Sinchi Institute and the IIAP, which are responsible for research in the Amazon and Pacific regions respectively. The Humboldt Institute works with these institutes on issues of shared importance, and also enjoys a strong relationship with the National Parks Unit.

Eugenia Ponce de León Chaux  
*Director-General*

Brigitte LG Baptiste  
*Deputy Director for Science*



2010 International Year of Biodiversity

# THE HUMBOLDT INSTITUTE: OUR RESEARCH PROGRAMS

## Policy, legislation and support for decision-makers

**Aim:** To coordinate, promote and perform research for the development and monitoring of policies, legislation, and other decisions which affect Colombia's biodiversity.

**Description:** The Humboldt Institute's role is not just to produce knowledge on biodiversity. We also seek to ensure that this knowledge reaches decision-makers in a timely and effective manner. This Program is responsible for monitoring public- and private-sector decisions which affect biodiversity in Colombia, as well as for translating scientific knowledge into terms which can help inform those decisions.

**Results to date:** The Program has analyzed the biodiversity impacts of cross-cutting policies and has proposed viable options for the development, reform or adjustment of those policies. Among its other activities, the Program has strengthened Colombia's capacity to manage cross-border movements of genetically-modified organisms.

**Focus in 2010:** The Program will coordinate studies to quantify the contribution of biodiversity to human health, food security and agricultural production. It will also work with the Institute's other programs to apply their research to relevant decisions, and it will analyze the institutions and cross-cutting policies which affect biodiversity.

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## Socio-economic aspects of biodiversity use and conservation

**Aim:** To coordinate, promote and perform research on historical, regional and cultural aspects of biodiversity use and conservation in Colombia.

**Description:** The Program's general focus is broadening the understanding of biodiversity transformation and use. Such understanding is seen as an essential basis for the design of initiatives, policies and instruments which guide decisions related with the maintenance of key socio-ecological processes.

**Results to date:** The Program's results can be divided into three groups: (a) contributions to the understanding, recognition and appreciation to the different "knowledge systems" held by different communities regarding biodiversity use and management in socio-ecosystems; (b) the development of criteria and guidelines for biodiversity use and conservation *in situ* and *ex situ*; and (c) the development of analytical frameworks for integrated valuation in socio-ecosystems.

**Focus in 2010:** The Program is seeking to incorporate a socio-ecosystem approach to biodiversity management in Colombia, based on recognition of socio-ecological complexity and institutional processes.

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## The biology of biodiversity use and conservation

**Aim:** To coordinate, promote and perform integrative research which informs decisions regarding biodiversity use and conservation, the maintenance of ecosystem services and the ecological and evolutionary processes which sustain them, using a socio-ecosystem approach.

**Results to date:** The Program's principal contributions have been the generation of information, and the coordination of processes and initiatives, as inputs to national and regional decision-making. These have included: the Red Book series on threatened species; the national action plan on invasive species; the identification, prioritization and consolidation of protected areas and conservation initiatives (AICAS/ IBAs); and the development of tools for the conservation of rural landscapes.

**Focus in 2010:** Five components have been identified, including: biodiversity in inland aquatic ecosystems; biological invasions and their impacts of biodiversity; the national and international trade in species; preventing species extinction; and conservation areas and ecosystem services.

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## The Colombian Biodiversity Information System

**Aim:** To develop a national alliance to promote the management of information to support research, education and, above all, decision-making that affect the understanding, conservation and sustainable use of Colombia's biodiversity.

**Results to date:** The Program has developed the Colombian Biodiversity Information System (SiB) and its online portal, [www.siac.net.co/sib](http://www.siac.net.co/sib). The SiB has been designed to facilitate distributed data management. This has meant creating capacity at national, regional and local levels to improve the collection, documentation, storage, analysis, exchange and dissemination of information on Colombia's biological resources. Each member institution or individual is responsible for the information they contribute, and has a commitment to guarantee that any contribution complies with nationally-defined standards for the publication of biodiversity information through the portal.

**Focus in 2010:** The SiB Program will concentrate on strengthening the relationship between biodiversity research and decision-making. It will do so through the consolidation of national and international networks and the development of specific information products for decision-makers and those involved in formulating public policies regarding the relationship between biodiversity and climate change and regarding processes of biodiversity conservation.

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Convention on  
Biological Diversity

# THE CONVENTION ON BIOLOGICAL DIVERSITY (CBD)

*The Convention on Biological Diversity was signed in 1992, at the Earth Summit in Rio de Janeiro. It entered into force the following year, thereby establishing an international framework for biodiversity conservation and sustainable use.*

## What are the Convention's objectives?

The Convention has three objectives: the conservation of biological diversity; the sustainable use of its components; and the fair and equitable sharing of benefits arising out of the utilization of genetic resources. This last objective is of particular relevance for megadiverse countries like Colombia, which are recognized as possessors of great biodiversity, and for ethnic and rural communities, owners of traditional knowledge on biodiversity.

## How does the Convention help promote the conservation and sustainable use of biodiversity?

The Convention establishes principles and strategies for the conservation and sustainable use of biodiversity. It has also led several initiatives to collect evidence, perspectives and case studies, which have informed conservation actions worldwide. The financial mechanism of the Convention is the Global Environmental Facility (GEF) which seeks to help countries comply with their obligations under the Convention. The GEF has invested more than US\$4 billion in biodiversity conservation in developing countries. In Colombia, it has financed the Andes, Andean Páramo and National Biosafety projects, among others.

## What are the key thematic areas of the Convention?

The Convention organizes key issues into seven programs: agricultural biodiversity, dry and sub-humid lands biodiversity, forest biodiversity, inland waters biodiversity, island biodiversity, marine and coastal biodiversity, and mountain biodiversity. It also considers a variety of cross-cutting issues, such as impact evaluation, tourism and climate change, which

affect these thematic programs. A supplementary agreement to the Convention, the Cartagena Protocol on Biosafety, was signed in 2000 and entered into force in 2003.

## What is the ecosystem approach?

The ecosystem approach is a strategy for the integrated management and restoration of land, water and living resources, which considers not just the maintenance of individual species but also of different ecological processes. The approach is one of the Convention's cross-cutting issues; the current priority is for it to be implemented by the Parties to the Convention.

## How does Colombia participate in the Convention?

Regarding the Conferences of the Parties to the Convention, Colombia is member of the Group of Like-Minded Megadiverse Countries, which seeks to develop common positions. On a national level, the **Humboldt Institute** is the focal point of the Convention's Clearing House Mechanism ([www.humboldt.org.co/chmcolombia](http://www.humboldt.org.co/chmcolombia)). This involves managing national biodiversity information to allow the global exchange of knowledge. This exchange is an obligation of the Parties under Article 17 of the Convention.

Official website of the CBD: [www.cbd.int](http://www.cbd.int)

Biodiversity includes “diversity within species, between species and of ecosystems”.

192 countries are Parties to the Convention.





# THE 2010 BIODIVERSITY TARGET AND THE INTERNATIONAL YEAR OF BIODIVERSITY

*In 2002, the international community set a target: to achieve a significant reduction in the current rate of biodiversity loss before the end of 2010. According to projections, this target will not be met. Concerned at the situation, the UN General Assembly declared 2010 the International Year of Biodiversity (IYB), in an effort to raise awareness about the current loss and to strengthen actions for the conservation and sustainable use of biodiversity.*

## Why is the International Year of Biodiversity important?

The year represents a unique opportunity to recognize the contribution of biodiversity to our societies, and to decide how to maintain this contribution. The starting point for the IYB is the fact that the 2010 Biodiversity Target will not be met and that, should biodiversity loss continue, there will be grave consequences for human populations.

## Why has the 2010 Biodiversity Target to reduce biodiversity loss not been met?

There are multiple causes. The most complete study of biodiversity to date – the Millennium Ecosystem Assessment (2005) – identified five main drivers of biodiversity loss: habitat loss (for example, forest fragmentation); the introduction and spread of invasive exotic species outside of their normal distribution; the overexploitation of natural resources; pollution, especially that originating in fertilizer use which causes an excess of nutrients in soil and water; and climate change. The study also identifies the main indirect drivers, including changes in human population, technology and the economy, as well as socio-political and cultural factors.

## Is there a link between the 2010 Biodiversity Target and the Millennium Development Goals?

Absolutely. The failure to meet the 2010 Target jeopardizes the achievement of the Millennium Development Goals (which have a time horizon of 2015). The Parties to the Convention on Biological Diversity have emphasized that biodiversity conservation is crucial if goals regarding drinking water, infectious diseases, hunger, nutrition and other dynamics are to be achieved.

## What is the central message of the International Year of Biodiversity?

*Biodiversity is life, biodiversity is our life* is the slogan of the IYB 2010. The slogan emphasizes the tangible benefits that biodiversity provides for human development.

## What international activities are planned?

The IYB 2010 will be launched on January 11th by Angela Merkel, the German chancellor, and will then be marked by celebrations worldwide. Of special importance is the 10th Conference of the Parties to the CBD, which will take place in Nagoya, Japan, in October. For more information about the calendar of 2010 activities, visit [www.cbd.int/2010/calendar/](http://www.cbd.int/2010/calendar/)

## What activities are planned in Colombia?

As a Party to the Convention on Biological Diversity and as a member of the Group of Like-Minded Megadiverse Countries, Colombia has shown its commitment to the conservation and sustainable use of biodiversity and to realizing activities for the IYB 2010.

The national Directive Committee, which is coordinated by the **Humboldt Institute**, has established three strategic areas for the IYB 2010:

- **Management**, seeking to involve different actors, both in the private and public sectors, in biodiversity management,
- **Communications**, creating public awareness about the services provided by biodiversity; and
- **Academic agenda**, bringing together biodiversity researchers in order to build a vision of what the post-2010 biodiversity target should be.