

Laguna de Fúquene Colombia

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Laguna de Fúquene Colombia

- Environmental setting
- Environmental problems
- Projects and outlook







Laguna de Fúquene

Height 2540 meter

Temperature 12.6 °C

Area: 30 Km²

Volume: 82.5 Mm³

Depth: 2.5 m

For the Indians (Muisca)

A sacred lake

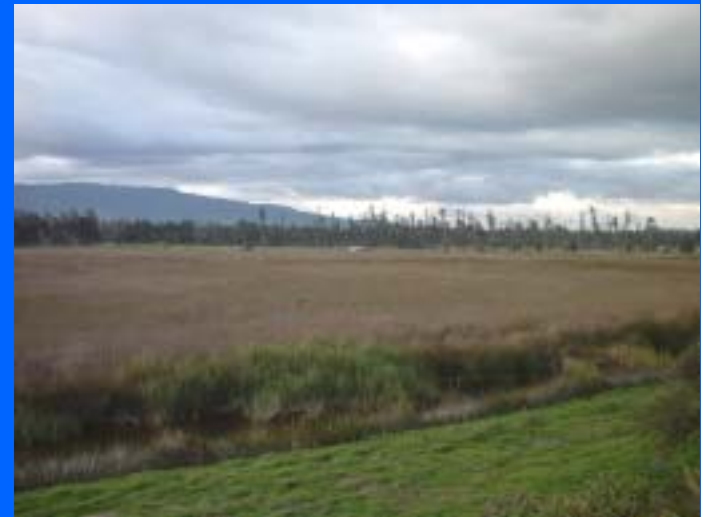
„Bed of the fox“

Cucunubá

Palacios



Cucunubá



Palacios



Connecting channel



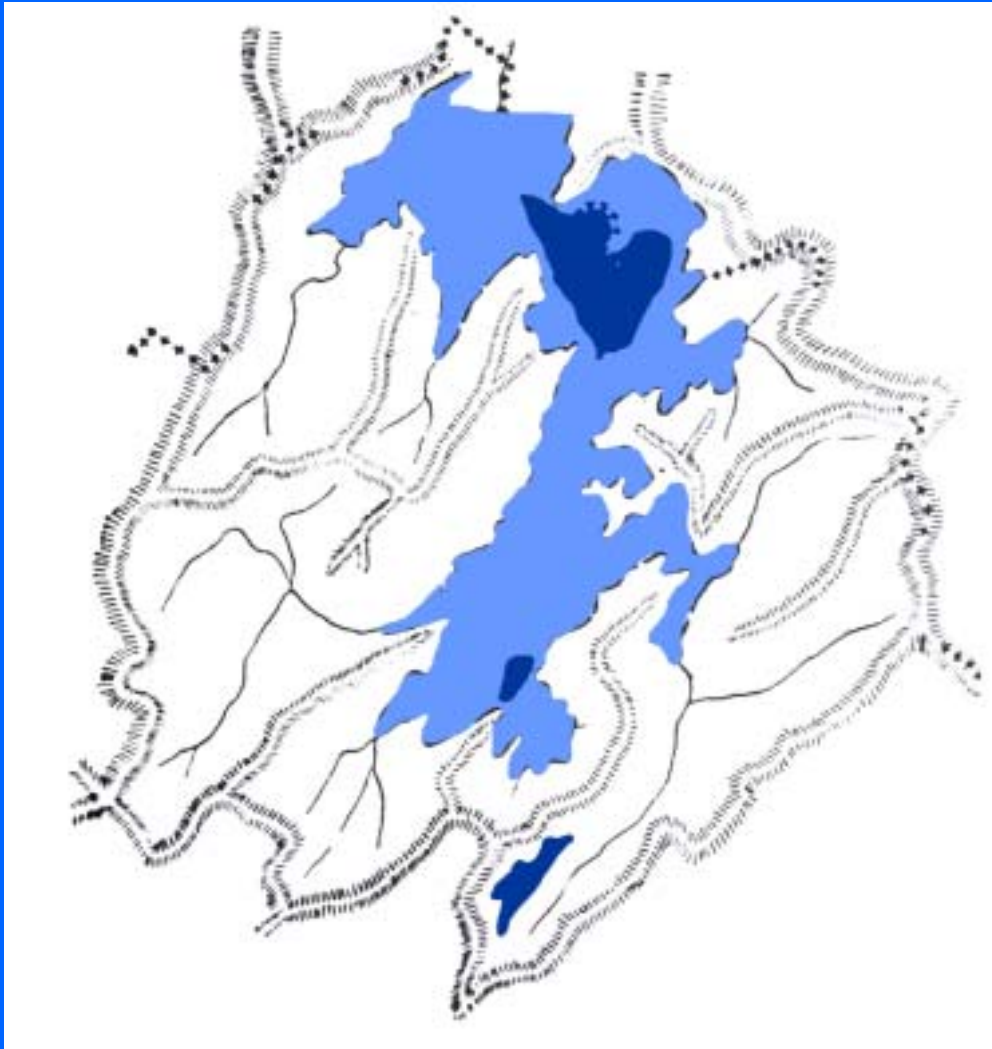
Least bittern (*Ixobrychus exilis bogotensis*)

Bird species: 47 about 2600 individuals
Plant species 248

Yellow-hooded blackbird
(*Agelaius icterocephalus bogotensis*)



American coot
(*Fulica americana*)



Since 1934 about 70% of the lake area (from 100 to 30 km²) has been dried and the level has decreased by 1 meter

THE HUMAN COMMUNITY AT THE LAKE'S SHORE

POPULATION AT THE WATERSHED

Urban: 76.800
Rural : 105.000
Total : 181.000

LOCAL POPULATION AT LAKE AND WETLAND HABITATS

100 families



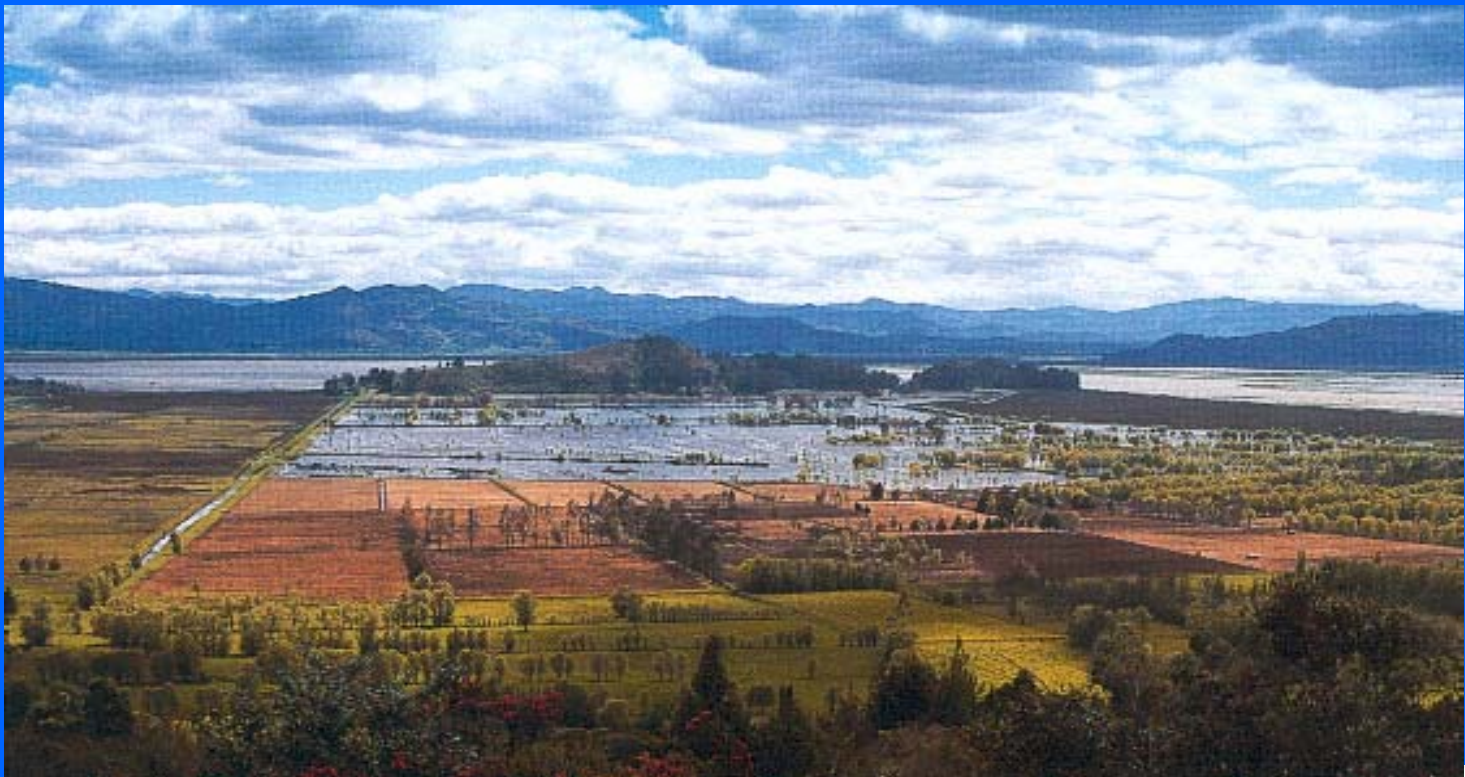


The Challenge:
a fast-changing lake and
an impoverished community

Unsound Development Model

Historically: a wealthy dairy industry caused ecological degradation

Economic success linked with the loss of natural and cultural values



Population 181000

171 000 heads of cattle

50 milk factories

only 5% of the natural forest

90% of the area for agriculture





Water pollution with phosphates and nitrates
Eutrophication through sewage (human and cattle)
Sedimentation through deforestation
Exotic plants (Water hyacinth and Elodea)





founded
Februar 2nd 2000





BASIC PRINCIPLES

(Ecosystem Approach - Convention of Biological Diversity)

Management objectives are a matter of social decision

Appropriate balance between biodiversity conservation and natural resources use

Equity in the distribution of social costs and benefits of conservation

The use of scientific information and local community knowledge

Conservation Strategy:

To empower local community for ecosystem sustainable management



MANAGEMENT GOAL



LINKING
BIODIVERSITY CONSERVATION
AND HUMAN WELL BEING

RESTORATION OF RIPARIAN FOREST

Community participation for re-creation of the Neotropical Alder riparian forests (*Alnus jorullensis*)







**Para que haya futuro
cuidemos el agua !**

*Compromiso de todos,
para proteger y
preservar nuestro
medio ambiente.*





Unilever field trip



SUSTAINABLE ECOLOGICAL MANAGEMENT OF FISHERIES

A mixed fish assemblage:
2 endemic and
4 alien introduced
species

Management goals:
Sustainable harvest
Conservation of
biodiversity



HABITAT MANAGEMENT

Sustainable use of reed beds (*Scirpus californicus* and *Typha spp.*)

- Ecological and economic keystone species.
- Habitat of endangered species





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- Global Nature Fund
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- Ecofondo Colombia
- Humboldt Institute Colombia
- Global Environmental Facility (GEF)
- US Fish and Wildlife Service
- Ramsar Convention
- Conservation International Colombia
- Scott Neotropical Fund
- Society of Wetland Scientists
- Royal Society for the Protection of Birds.
- Several private donors.

OUTLOOK:



- Information center (2005)
- A biodiversity action plan: GEF (2005-2006)
- Community based biodiversity monitoring system (2005 – 2006)
- Community conservation area CAA (2007)