

Linking Community Human Development with Lake Conservation. Fundación Humedales involvement in Lake Fúquene, Colombia.

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The integration of highland (2.500 meter) Andean Lake Fúquene (3000 Ha.) into the international Living Lakes prompted Fundación Humedales (a Colombian environmental NGO) to define a site intervention programme for the period 2000-2005. A conceptual framework based upon the ecosystem approach adopted by the parties of the Convention of Biological Diversity (CDB) was developed, a local community participation strategy was devised, and an institutional partnership proposed. The components of the defined programme are: (i) scientific research and environmental monitoring, (ii) biodiversity conservation and promotion of the protected area status for the area, (iii) natural resources management, (iv) public awareness and environmental education and (v) promotion of sustainable rural development. Having almost completed the time span of the Plan, a detailed description of the process and outcomes is presented, and a discussion on the scope and limitations of the achieved work is provided. Finally future perspectives for attaining the desired field impacts are outlined.

(i) Scientific research and environmental monitoring,

- Biodiversity inventories carried out, focusing on bird (emphasis on endangered and migratory species), fishes, an endemic freshwater crab, and aquatic plants. Indicators for monitoring are being proposed.
- A detailed habitat mapping process completed, based upon the use of satellite imagery and ground truth. A habitat description model was developed.
- A participatory biodiversity monitoring plan is being devised.

(ii) Biodiversity conservation and promotion of the protected area status for the area,

- Assessment of the status of 4 species of endangered birds in the site (relative abundance and absolute densities) carried out for Lake Fúquene. Pending for Cucunubá and Palacio wetlands.
- Assessment of the population status of 2 endemic fishes carried out.
- A demonstrative riparian forest restoration process initiated in a 1. Ha. land holding along the lake shore.
- A proposal for inclusion of Lake Fúquene in the List of Wetlands of International importance (RAMSAR developed). The Ramsar status of the area is being considered by the National Ramsar Authority.
- A proposal for internal zoning of the protected area is being developed, as a part of the biodiversity conservation strategy proposed by *Fundación Humedales*, and currently under review.

(iii) Natural resources management,

- Participatory management plans for lake fisheries developed. A fisheries management plan is being proposed for the environmental authority (CAR).
- A community organisation scheme for fisheries management is being developed for the Rural Development Authority (INCODER).

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- An inventory of reed harvesting processes has been concluded. A management plan for reed harvesting is being developed. Reed are used for elaborating handicrafts.

(iv) Public awareness and environmental education and

- Permanent public awareness campaigns being developed. Focus is made on understanding the process of ecological change of the lake, and valuing lake resources and environmental services.
- Production and dissemination of educational materials for Lake Fúquene (posters, educational games, etc.).
- Production for the Ramsar Convention of educational material for several Latin-American Ramsar sites.
- Extensive environmental education campaigns in local schools have been developed.
- Specific training on management skills for fisheries developed.
- Promotion of non-consumptive uses of birds (bird-watching tourism) is being done, through the training in bird identification of local young inhabitants.

(v) Promotion of sustainable rural development

- Feasibility studies for the use of aquatic weeds (invasive alien species) for fiber and organic manure developed.

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