Ibero-American Congress of Living Lakes
Chapala, Jalisco
March 24-26, 2004

Declaratory of Chapala

The Ibero-American Congress of Living Lakes of the Living Lakes international network, took place in the city of Chapala, Jalisco. Representatives of Spain, Colombia, Costa Rica, Guatemala, Brazil, Canada, Bolivia, Germany (headquarters of the Global Nature Fund) and Mexico, participated, as well as members of non- governmental organizations, academics, scientists, and representatives of the governments of towns surrounding Lake Chapala.

This Congress united members of Ibero-American Lakes for the purpose of discussing their successful as well as unsuccessful lake management and recovery experiences in their respective countries, with the objective of utilizing the lessons learned in the recovery of Lake Chapala.

The goals which we set for ourselves at the beginning of the planning of the Congress in March of 2003, were backed by wide participation of NGO members working on the recovery of the Lerma-Santiago-Pacific Basin and lakes close to Chapala (such as Lakes Villa Corona, and Cajititlan, both in the state of Jalisco).

The Congress was organized in discussion tables with concrete themes whose findings we presented ongoingly and which we will identify as the Declaration of Chapala.

The Declaration of Chapala is not a traditional political declaratory but consists of recommendations emanating from each of the discussion tables of the Congress concerning existing situations related to water management, such as the right that we all have to clean and sufficient water. Therein lies its contribution.

Table 1

Manmade Changes in the Basin and their Effects

The conclusions of this table refer to situations and general features of the hydrological Lerma-Chapala-Santiago-Pacific basin: the planning of basins, the concept of basins, the measuring of the quality and quantity of the water of basins, and the negative impact caused by the modification of tributaries of this basin.

1. Planning of water management of the basin must be carried out based on reliable data. At the same time scientific methods must be used which will allow us to reach scientific conclusions.
2. It is recommended that the concept of a complete basin be incorporated in all relevant programs, laws, accords and policies; that is to say, it should not be cut off in Chapala, but should end at the Pacific Ocean into which it empties.

3. It is recommended that systems of measurement be implemented in the basin through the installation of real time teledetection systems, for the purpose of determining the quantity and quality of the water.
4. The management model must be updated, relative to the hydrological equilibrium of the whole basin, since changes in the reservoirs and runoffs may exist, which serially alter the rivers and the humidity level in the basin, rendering the algorithm currently in use obsolete.
5. The modification of tributaries of Lake Chapala, can cause serious disasters for lakeside residents, such as that which occurred last year in the Zula River where a dam was constructed to modify the course of that river; this caused a flood in the city of Ocotlan, Jalisco. This Congress recommends that that dam be torn down, for the purpose of respecting the basins and micro-basins, as well as the federal zones and the natural levels of the lakes.
6. This Congress recommends systematic measurements of the variables of water contamination in accord with current and reliable national and international norms; this would allow us to know the quality of the water of the basin; this information should be available to the public. This information would include recordings of water quality as well as the existing water quality index.
7. Information regarding who the consumers of the water are throughout the basin as well as regarding the existing measurement systems, must be updated, in order to be able to make a cost-benefit analysis.
8. A program of intensive forestation and reforestation with native plants is urgently needed in the whole basin, since there are huge areas of erosion. This generates a lack of humidity, altering biodiversity and causing loss of fertile soil.
9. The examples of Lakes Villa Corona and Cajititlan, both in the state of Jalisco, underline the necessity of analysis and integration of the complete lake system within the Lerma-Chapala-Santiago Basin.

Table 2

Social, Economic and Cultural Features of Hydrological Basins

This table dealt with features related to various developing activities which have a large social impact in the basin (principally in Lake Chapala), including tourism, fishing and agriculture; it also dealt with other equally important related issues, such as the quality and mangagement of the water and knowledge of sacred sites in Lake Chapala.

Development of Tourism

1. Any activity related to taking advantage of touristic opportunities at Lake Chapala and in the Lerma and Santiago rivers must be part of a Sustainable Tourism Development Plan, which encompasses biodiversity, culture and countryside. This plan must include clearly defined environmental, social and economic objectives.
2. In order to have a successful plan in the sustainable tourism sector, it is indispensable to offer tourism of quality and to use instruments such as ecolabel

(mark of environmental quality) and systems of environmental management such as ISO 14,001, to guarantee the quality of environmental administration and tourism.

3. It is recommended that in terms of the applicable laws of the State of Jalisco as well as at the federal level, the Lake Chapala lakeside and the other lakes of the zone be declared priority ecosocial tourism areas (ecoethnotourism); in this way the lakeside communities themselves become interested in their preservation.
4. If indeed ecotourism represents a development opportunity for Lake Chapala, it is recommended that there be a monitoring system to control the impact of tourism on the countryside, on ecosystems, culture, traditions and archeological treasures, and that measures be applied to reduce and/or prevent any negative impact.
5. It is recommended that the basic infrastructure be evaluated and/or completed with current environmental technology at the Lake Chapala lakeside, with treatment plants for gray water, toilets with water saving systems, and alternative energy saving systems, as a necessary condition for the development of more systematic and continuous tourist activities.
6. We must start from a general premise: the needs of the communities must dictate the development of ecotourism; community needs should never be subordinated to the interests of tourism.

Agriculture

1. Agricultural planning must be based on the capacities of the ecosystems and not on traditional crop-growing systems that do not fit with the goals of water saving and economic profit.
2. It is necessary to carry out crop rotation based on the natural characteristics of each zone of the basin while seeking the highest yields. The main focus of the activity is to keep the soil fertile with the least impact on the environment.
3. The technologies which have traditionally been applied in agricultural irrigation systems cause great water loss. Irrigation systems will have to be technologically upgraded and modernized in such a way that the amounts of water used in the agricultural activity of the basin are decreased; this would mean a significant increase of water for the rivers Lerma and Santiago as well as for Lake Chapala.
4. There must be incentives for agricultural practices which are respectful of the environment, such as organic agriculture and crops with low water requirement; economic incentives (such as easy credit), are recommended.
5. Clandestine uses of surface as well as subterranean water, should be cause for strong sanctions which must be applied by responsible authorities; a more effective surveillance system should be instituted throughout the whole basin.
6. The protection and preservation of the biodiversity of Lake Chapala and in the whole Pacific basin represent a strategic environmental imperative; respect for and preservation of the native species of flora and fauna must be prioritized; this includes vegetable soil as well as forest species; the introduction of new species which alter the ecosystem, especially that of the flora and fauna, should be avoided.

7. In Lake Titicaca in Bolivia, the indigenous communities through their Council of Elders plan agricultural activity based on relevant technical information concerning the condition of the soil, increase in erosion of the ecosystem and traditional uses; they respect the environment since this is what sustains them. This is a lesson learned from our Bolivian members.

Fishing

1. Fishing represented one of the most important ancestral activities of Lake Chapala. Today fishing is threatened principally by two variables: water level, and water quality. The lack of treatment of urban, agricultural and industrial wastes poses huge risks for this activity; therefore this Congress proclaims itself in favor of implementing as soon as possible a global cleanup program for the whole basin which adheres to the principle: whoever contaminates must pay.
2. Fishing permits must be evaluated, as well as the programs of fish replacement implemented by the Government. Introduced species have caused drastic reduction of the original species of the lake. It is therefore recommended, that as the quantity and quality of water improve, a program be instituted in conjunction with the fisherman of Chapala to introduce species of fish native to or compatible with the original species of Lake Chapala.
3. The government will have to preserve the fishing industry, since there are thousands of families who make their livelihood from this activity. Fishing also makes up the diet of many inhabitants without adequate economic resources.
4. Water hyacinths ("lirio") have two main functions in fish: as food and in the process of spawning (among others). An increase in water hyacinths presents a problem. This Congress therefore declares itself in favor of seeking alternative uses of water hyacinths through forming pilot groups to explore its possible use as cattle feed, and in industrial processes.

Water Quality

1. Since Lake Chapala is one of the main water supply sources for the metropolitain zone of Guadalajara, as well as for the lakeside communities, we demand that the water that goes into Lake Chapala and to any other lake in the basin, as well as into the Lerma and Santiago rivers, be of a quality which is in accord with national and international norms for human use.
2. It is public knowledge that in the entire Lake Chapala lakeside as well as in the whole Lerma-Santiago-Pacific Basin, the treatment plants are true white elephants. This is because the high costs of maintenance cancel out their efficiency with respect to cleaning the water. This Congress declares itself in favor of implementing cost effective (low initial and low maintenance cost) water treatment techniques.
3. Responsible authorities should immediately put into operation the existing treatment plants, as well as constructing plants promised since 1995. They must bring up to date the technology of water treatment plants according to

contamination level and treatment volumes. In future social or industrial construction projects, authorities should demand of owners or other responsible parties, that their wastes be treated, and apply the principle of environmental law: whoever contaminates must pay.

4. Our Spanish members presented an innovative technology: the floating macrophyte filter called "Espana." This was accomplished through model projects. This Congress therefore declares itself in favor of studying this technology and the potential for its applicability in the communities of Lake Chapala.

Water Management

1. The problem of Lake Chapala and of its basin is not a problem of scarcity of water; rather it is a problem of water management. This Congress is in favor of modifying the current model of water management based on water supply and institutional engineering, and going to a model based on indirect policies (economic and financial) and actions oriented toward the participation of the parties involved.
2. There has been a great deal of dispute with respect to considering Lake Chapala as an environmental consumer of the basin. A consumer is a physical or legal entity which has a specific amount of water assigned to it for a specific use. Lake Chapala therefore cannot be in this legal category, since it is part of the basin. This Congress considers a matter of public interest the quantity of water necessary to maintain the hydrological equilibrium of Lake Chapala and of any hydrological ecosystem.
3. This Congress is in favor of extrapolating from successful water management experiences. A case in point is the macro directive of water of the European Union, in which the member states must elaborate a plan of water management, specifying who the consumers are, as well as specifying strict control of the quantity and quality of the water. This obligates them to maintain the quality of water, without having to consider which peoples or countries use it, according to the principle: whoever contaminates must pay.
4. This Congress expresses its concern for the tendency to privatize water use. This is the case in the creation of Water Banks in which it is business interests that fix the price of water on the basis of supply and demand. We therefore recommend not losing sight of the fact that the value of water transcends any monetary value since it constitutes one of the intrinsic rights of human life; it is an essential human right: we can live without electricity but never without water.
5. In repeated lectures of this Congress concern was clearly expressed about the inadequate management of garbage and the impact that improvised open-air landfills cause in ravines, rivers and lakes. This Congress declares itself in favor of responsible authorities' specifying the locations of sanitary landfills in which leach leakage is optimally controlled in order to avoid harming superficial and subterranean deposits.
6. Lake Chapala represents one of the main sources of water supply for the city of Guadalajara; this Congress recognizes the right of the inhabitants of the adjacent

municipalities to the water supply in adequate quality and quantity. Therefore there is a need to institute policies and programs aimed at the constant and progressive recovery of Lake Chapala.

7. This Congress recognizes the environmental crisis and deterioration of Lake Chapala. Consequently, the search for alternative sources to Chapala as a water supply for the municipalities adjacent toGuadalajara is an unavoidable obligation of government and society; therefore we are in favor of viable sources, with low environmental, social and economic impact, both in terms of transport and in the operation of the supply system; furthermore this Congress declares itself against a water supply project which would put at risk the economy and the health of the inhabitants of the municipalities adjacent to Guadalajara; it is therefore recommended that the Arcediano project be fundamentally revised.

Table 3

Citizen and University Participation in the Management of the Basins and Lakes

This table gathers recommendations and conclusions related to promoting citizen and University participation in the management of the Lerma-Santiago hydrological basin and Lake Chapala. This participation should begin with the activities and programs of education and scientific investigation that are currently operating.

1. This Congress recognizes the necessity of a close link to and cooperation with universities, research and educational centers, organized social groups and governments. These connections would have the goal of making use of the findings in the different areas, and promoting the sharing of scientific knowledge for the sustainable management of Lake Chapala and the Basin.
2. Participatory environmental management should be carried out, such as that called for in resolution VIII.36 of the Eighth Conference of the Contracted Participants of the International Convention of RAMSAR; this Congress therefore declares in favor of actively motivating social groups to participate in sustainable development. The participatory process must be transparent and it must be applied to all phases of development, from the planning and formulation to the evaluation and application of plans and programs.
3. This Congress recommends to all municipal, state and federal governments of the Lerma-Chapala-Santiago-Pacific Basin, that they strongly support the NGOs and organized social groups, which are working for the benefit of Lake Chapala and the whole Basin. Infrastructure, financing and access to information should be provided, so that they can develop their projects.
4. This Congress declares in favor of working jointly with the Secretary of Public Education, the University of Guadalajara and other private Universities that may be at work in the region of the shores of Lake Chapala. The purpose would be to link schools and centers of technical education, in order to create common programs of environmental education, in which the conservation and preservation of Lake Chapala, would be the unifying purpose.

5. This Congress recognizes the present and future of Lake Chapala in young people and children. We therefore recommend promoting and motivating the participation of young people, using "their" language and putting on events tailored to them, in the hope that they will assume the commitment to "our lakes" and share this message with all the young people of the region.
6. This Congress recognizes the role of the Huichol people in the conservation of Lake Chapala, and the sacred sites in it where their ancestral patrimony is found. We therefore declare that the consultation and participation of the Huichol people should be indispensable elements in all policy and program decisions related to the recovery of Lake Chapala. Regarding the sacred sites of the Huichol people, they have taught us in this Congress that "The lakes are the mirror of ourselves."

Table 4

Public Policies, Management Plans and Establishing Norms

This table dealt with the plans, policies and existing laws for the management of lakes; because of its importance for the recovery and sustainability of the entire basin, emphasis was placed on the Accord signed on the 22nd of March of this year (2004).

Establishing Norms

1. This Congress calls the attention of the Mexican authorities to the failure of application of environmental laws related to the use, exploitation, conservation and preservation of water. In effect, one of the constants of the different reports and interventions in the discussions of this Congress, was that related to the existence of laws, and the problem of the nonexistent or deficient application of them, with regard to waste water, soil, biodiversity and vegetation loss, etc. We therefore are in favor of making an energetic appeal to all authorities to the effect that, within their respective realms, they institute more effective and efficient mechanisms for compliance with environmental laws, not only in the Lake Chapala Basin but in the whole hydrological basin.
2. On the 22nd of March of 2004, the Accord for the Recovery and Sustainability of the Lerma-Chapala Basin was signed, and from analysis of its contents it is concluded that it is the "agreement to agree"; it enunciates central themes and directions for action, without explicit content. This Congress therefore proclaims that the findings of the work tables should be incorporated into the policies and programs that will arise from this Accord. At the same time we recommend incorporating the following features into the contents of all the instruments that may stem from this accord:

    a. To begin with the realities, the social problems of the basin must be recognized in order to create pertinent and effective legal tools which will aid in their resolution; for example there are the conflicts in water use which exist at the present time with the farmers of the state of Guanajuato and with the

fishermen of Chapala; there are potential problems with the state of Nayarit because of the waste sent to it from the municipalities surrounding Guadalajara.

b. We must hierarchize not plans and intentions but the problems themselves, in order to resolve them. As mentioned above, the basin has grave problems regarding contamination, biodiversity, water volume and conflicts over water. We must therefore prioritize actions and resources, in order to go forward in the restoration and recovery of the whole basin and Lake Chapala.

a. We must incorporate the vision of sustainability, referring to those principles that will govern the use and management of water: the principle of prevention; the principle of whoever contaminates must pay; the principle of prudence; the principle of solidarity in the management of waters above and waters below Lake Chapala; the principle of sustainability; the principle of social co-responsibility.

b. We must think about effective tools for the execution of and compliance with laws, programs and decrees, incorporating the concept of public interest for the management of water in the differing circumstances of abundance and/or scarcity and/or hydrological-environmental emergency.

c. We must think of tools that make explicit obligations, commitments and/or sanctions, not good will and plans; we must build bridges of understanding between government and society, including not only the Councils of the basin but also state and /or municipal instruments of water management. This would apply to the basins of the lakes that exist in the area, when these ecosystems might be affected by bad hydrological policy.

f. If there is no true progress in the mechanisms of hydrological policy at the Executive level, the legislature must assume its responsibility and vote for the Law for Environmental Restoration of the whole basin; this law was approved by the Senate, and the tools for carrying it out must come from it.

3. Given the complexity of the problems of the hydrological basin of Lake Chapala, this Congress proclaims itself in favor of restoring the municipality as the integrated management unity of water and soil use; we therefore exhort the municipal governors of the Lake Chapala basin to implement programs and policies that will aid in the recovery of Lake Chapala, including their own management tools such as municipal ecological regulations, urbanization plans and the treatment and good functioning of potable municipal water.
4. This Congress demands that the Mexican authorities respect and apply the international agreements signed by Mexico, among others that of biodiversity, of RAMSAR, of Kyoto and Agenda 21 of Rio de Janeiro. We include ourselves in supporting the initiative of the members of Living Lakes to the effect that Lake Chapala be declared a "RAMSAR site."

Finally, this Congress declares itself in favor of the recognition of the natural level of Lake Chapala, not a level set by political interests.

Once again, we must recognize the rich experience of the residents of the Basin and the active participation of the community, as well as that of the members of the international community of Living Lakes. All of them put their experience at the service of the authorities, so that we could work together on the national as well as the international scene toward the solutions of the problems of Lake Chapala and its Basin.

Sincerely yours,

Chapala, Jalisco, March 26, 2004.
To save a lake is to save the world.

Ibero-American Congress of Living Lakes