



Implementation of Agenda 21 in Lake Regions



7th Living Lakes Conference

Johannesburg/Pretoria, South Africa
August 20th - 25th, 2002

Documentation

The Living Lake Partners



Partners:

1. Columbia River Wetlands; Canada
2. Mono Lake; California, USA
4. Laguna Fuquene; Colombia
5. Pantanal Wetlands; Brazil, Bolivia, Paraguay
6. Mar Chiquita; Argentina
7. Norfolk & Suffolk Broads; Great Britain
8. La Nava Wetland; Spain
9. Lake Constance; Germany, Austria, Switzerland
11. Milicz Ponds; Poland
12. Nestos Lakes; Greece
15. Lake St. Lucia; South Africa
16. Lake Uluabat; Turkey
17. Dead See; Israel, Jordan, Palestine
18. Lake Tengiz; Kazakhstan
19. Lake Baikal; Russia
21. Lake Biwa; Japan
22. Laguna de Bay; Philippines
23. Mahakam Lakes; Indonesia

Candidates

3. Lake Chapala; Mexico
10. Lake Võrtsjärv/Peipsi, Estonia - Russia
13. Lake Larache; Morocco
14. Lake Victoria, Kenya, Tanzania, Uganda
20. Lake Poyang, China

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Marion Hammerl-Resch
President of Global Nature Fund

Preface

In the run-up to the World Summit on Sustainable Development, the Global Nature Fund (GNF), in cooperation with the South African Wilderness Foundation and the Wildlands Trust, held the 7th Living Lakes Conference on the topic „Implementation of Agenda 21 in Lake Regions“ from 20-25 August 2002 in South Africa. Within the framework of the conference, 150 experts discussed ways for building up successful cooperation between non-governmental organisations, authorities and business to bring Agenda 21 from paper to practice.

This documentation contains presentations about best practice examples on the implementation of Agenda 21 at Lake Constance, Lake St. Lucia and the Laguna de Bay. Furthermore you will find background information on the pristine Antarctic Lake Vostok, the first honorary lake of the Living Lakes network

and on the 12 Principles of Sustainable Development in Lake Regions. This paper was a contribution of Living Lakes to the World Summit in Johannesburg.

The 7th Living Lakes Conference was a major step in enlarging the network. Four lakes were elected new candidates for the Living Lakes Network. I cordially welcome in our network the new candidate organisations from Lake Victoria in East Africa, Lake Chapala in Mexico, Lake Poyang in China and Lake Võrtsjärvi/Peipsi in Estonia and Russia.

I would like to especially thank our local partners from the Wilderness Foundation and the Wildlands Trust for hosting the 7th Living Lakes Conference in South Africa. Particularly noteworthy is the support of Unilever South Africa and DaimlerChrysler South Africa in making this conference an exceptional successful event. We express our special gratitude to both companies.

We also express our gratitude to our international sponsors Unilever, the Global Partner of Living Lakes, DaimlerChrysler, Deutsche Luft-hansa, T-Mobile, Kärcher and particularly the Deutsche Bundesstiftung Umwelt (DBU) - German Federal Foundation for Environment for supporting the Living Lakes Conference and the network's participation at the World Summit.

Preface

Representatives from 25 countries participated in the 7th Living Lakes Conference in South Africa from 20 - 25 August 2002.



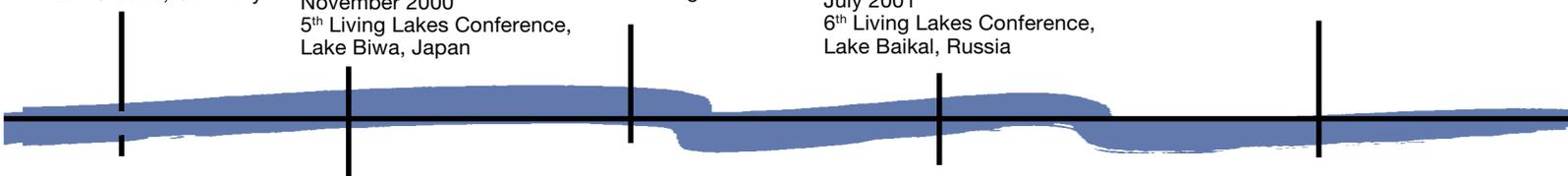
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History of Living Lakes

Vorwort

Vom 20. bis 25. August 2002 fand die 7. internationale Living Lakes-Konferenz in Südafrika statt. „Umsetzung der Agenda 21 in Seenregionen“ war das Thema der vom Global Nature Fund (GNF) in Kooperation mit den südafrikanischen Umweltverbänden Wilderness Foundation und Wildlands Trust organisierten Seenkonferenz.

150 Wasserexperten und Seenschützer diskutierten Bedingungen für eine erfolgreiche Umsetzung der Agenda 21 durch Kooperationen zwischen Behörden, Politik, Wirtschaft und Nichtregierungsorganisationen (NGOs). Hierzu wurden Praxisbeispiele vom Bodensee, dem südafrikanischen St. Lucia See und Laguna de Bay, dem größten See der Philippinen, vorgestellt. Die Teilnehmer beschlossen eine Resolution zum Seen- und Wasserschutz, die auf dem anschließenden Weltgipfel für nachhaltige Entwicklung in Johannesburg vorgestellt wurde. Die Konferenz bedeutete auch einen wichtigen Schritt in der Erweiterung des Living Lakes-Netzwerks. Der GNF begrüßt vier neue Kandidaten vom Viktoriasee in Ostafrika, dem mexikanischen Chapala-See, dem Poyang-See in China und dem baltischen Seenverbund Võrtsjärv-Peipsi im Netzwerk.

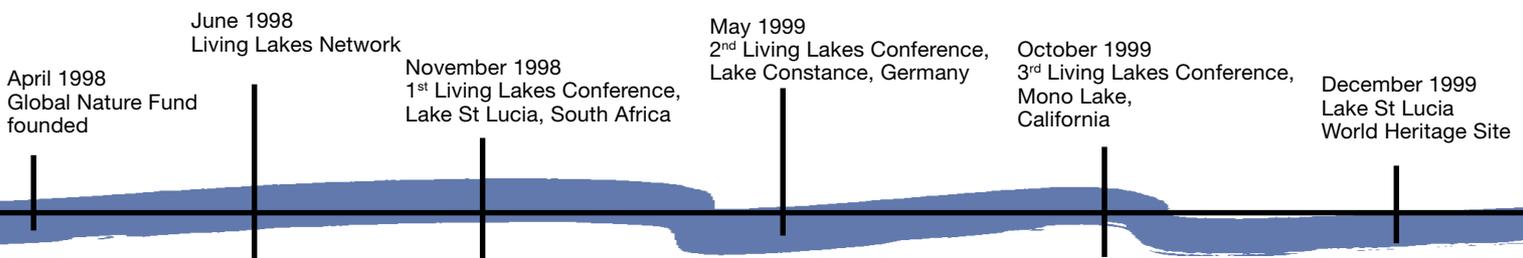
Ausdrücklicher Dank gilt unseren Förderern, ohne deren Unterstützung die Veranstaltung und die Präsentation von Living Lakes auf dem Weltgipfel in Johannesburg nicht möglich gewesen wäre: Unilever, Daimler-Chrysler, Deutsche Lufthansa, T-Mobile, Kärcher und besonders der Deutschen Bundesstiftung Umwelt (DBU).

History of Living Lakes

Living Lakes is an international lake partnership created and co-ordinated by the Global Nature Fund (GNF), an international non-governmental and non-profit organisation, located in Radolfzell at Lake Constance in Germany. The Living Lakes project started in 1998. At present the international lake network consists of 30 organisations from five continents promoting the protection and sustainable development of lakes and wetlands. Conservationists together with decision makers and businesses strive for the preservation of water quality, habitat of rare animals, migratory birds and plants.

Sharing of knowledge, encouraging best practice, recognising global responsibility and establishing local partnerships between NGOs, business and local communities, are all vital elements of the Living Lakes partnership. Annual Living Lakes conferences are held, thereby promoting the exchange of experiences, formulate statements, co-ordinate activities and decide about further steps for common activities. Three internet websites and an intensive PR are crucial instruments to present the activities and results of the international cooperation to a broad public.

The Greater St Lucia Wetland Park presents a wealth of plant and animal life including a great richness in bird life.



Current members of the Lake Network are Mono Lake, (USA), Lake Constance (Germany, Switzerland, Austria), Lake St. Lucia, (South Africa), Lake Biwa (Japan), Lake La Nava (Spain), Nestos Lakes (Greece), Lake Baikal in Russia, the Norfolk & Suffolk Broads in the UK, the Pantanal-Wetland (Brazil, Bolivia, Paraguay), Lake Tengiz (Kazakhstan), Dead Sea (Jordan, Israel and Palestine), the Milicz Ponds (Poland), Mar Chiquita (Argentina), Columbia River Wetlands (Canada), Mahakam Lakes (Indonesia), Lake Uluabat (Turkey), Laguna Fuquene (Colombia) and Laguna de Bay (Philippines). Candidates are Lake Larache (Morocco), Lake Võrtsjärv/Peipsi (Estonia), Lake Victoria (Kenya, Tanzania, Uganda), Lake Chapala (Mexico) and Lake Poyang (China). The first honorary member is Lake Vostok (Antarctica).

Global partner of the Living Lakes project is Unilever, a Global Player itself. Unilever supports the world-wide activities of the Global Nature Fund. Sponsors at international level are DaimlerChrysler and the German airline Lufthansa. Living Lakes is also supported by telecommunication company T-Mobile, Deutsche Bundesstiftung Umwelt (German Federal Foundation for Environment), Kärcher, Ziemann and middle-sized companies like Kopf AG (Sulz), a pioneer in the field of solar energy devices. Media partners of the Living Lakes project are the nature magazine natur&kosmos and the publishing house Gruner+Jahr, publishing the well-known magazine GEO.

Geschichte von Living Lakes

Living Lakes ist ein internationales Netzwerk, geschaffen und koordiniert vom Global Nature Fund (GNF), einer internationalen, nichtstaatlichen und gemeinnützigen Organisation mit Sitz in Radolfzell am Bodensee in Deutschland. Das Living Lakes Projekt wurde 1998 gestartet und besteht momentan aus 30 Organisationen an 23 Seen auf fünf Kontinenten. Die Partnerorganisationen engagieren sich für den nachhaltigen Schutz von Seen, Feuchtgebieten und Trinkwasser. Zusammen mit Politik und Wirtschaft treten Umweltschützer im Rahmen des Seennetzwerkes für Modellregionen im Sinne der Agenda 21 ein.

Summary of the 7th Living Lakes Conference

Close on 150 participants from 25 different countries took part in the 7th Living Lakes Conference in Johannesburg/Pretoria, South Africa. Under the theme „Implementation of Agenda 21 in Lake Regions“ representatives of environmental NGOs, corporations and local authorities presented concrete models and best practice examples of effective nature conservation measures.

Examples of the successful transboundary and interdisciplinary cooperation among these three groups can be found within the 23 lakes of the international Living Lakes network, for instance at the World Heritage Site Lake St. Lucia in South Africa, Lake Constance in Germany, Switzerland, Austria and Laguna de Bay in the Philippines. Delegates of all three lakes presented their current projects and strategies at the conference.

Dr. Ben Ngubane, Minister of Arts, Culture, Science and Technology in South Africa, highlighted in his opening note (which he did not deliver personally) that sustainable development requires actions on the part of governments at all levels, private sector and civil society - not disjointed, self-serving actions but actions undertaken in partnership. Prof. Dr. Klaus Töpfer, Executive Director of the United Nations Environment Programme (UNEP) was a keynote speaker at the 7th Living Lakes Conference. He underlined the importance of the Living Lakes Network in promoting lake and water protection and called for the support of the delegates to make the World Summit a success. Gila Altmann, Deputy Minister for the Environment in Germany, emphasised the importance of international NGO-networks such as Living Lakes for enhancing sustainable development. Prof. Wolfgang Engelhardt, Honorary President of the German League for Nature Conservation and Environmental Protection, underlined the immense importance of the preservation and protection of the limited freshwater resources for later generations. The need of international support during the campaign to save the St. Lucia Wetland Area from mining activities and

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to promote conservation measures was stressed by Dr. Ian Player, pioneer and charismatic leader of the South African Conservation movement.

Four lake candidates were admitted to the international lake network during the conference. Among them are prominent representatives such as Africa's largest lake, Lake Victoria, which is bordered by three countries: Kenya, Tanzania and Uganda. The greatest threats are due to the introduction of exotic animal and plant species such as the predatory Nile perch or the sprawling water hyacinth which are responsible for the deterioration or even extinction of indigenous species. The Living Lakes candidate organisation at Lake Victoria is the Kenyan NGO OSIENALA.

Quite similar are the problems at the second new lake, Poyang, the greatest lake of China. Flood disasters and erosion problems are extremely severe in the area. The Chinese NGO MRLSD (Promotion Association for Mountain-River-Lake Regional Sustainable Development) is the new network candidate at Lake Poyang.

The third new candidate, Lake Chapala, Mexico's largest lake, is extremely threatened to dry up. It suffers from increasing diversions of water from its tributaries for irrigation purposes and for the water supply of the metropolis Guadalajara and Mexico City. Immediate help is necessary to save this unique nature paradise in Mexico. The Living Lakes candidate organisations are the Fundación Cuenca Lerma Lago Chapala and Sociedad de Amigos del Lago de Chapala.

Lake Võrtsjärv and Lake Peipsi, which are connected by a river system, are the fourth new candidate. As at many other lakes, the major threat to the lake water quality is eutrophication which is caused by high nutrient loads. The Estonian Fund for Nature (ELF) and the CTC Peipsi Center for Transboundary Cooperation are candidates for Living Lakes for this Baltic lake complex.

The first honorary member lake was accepted into the Living Lakes Network: Lake Vostok, the most pristine lake in the world. This huge body of freshwater lies beneath 4 km of ice and is completely isolated since more than 500,000 years. Lake Vostok is most likely 35 million years old and is entirely untouched by



Drumming session with the participants during the conference.

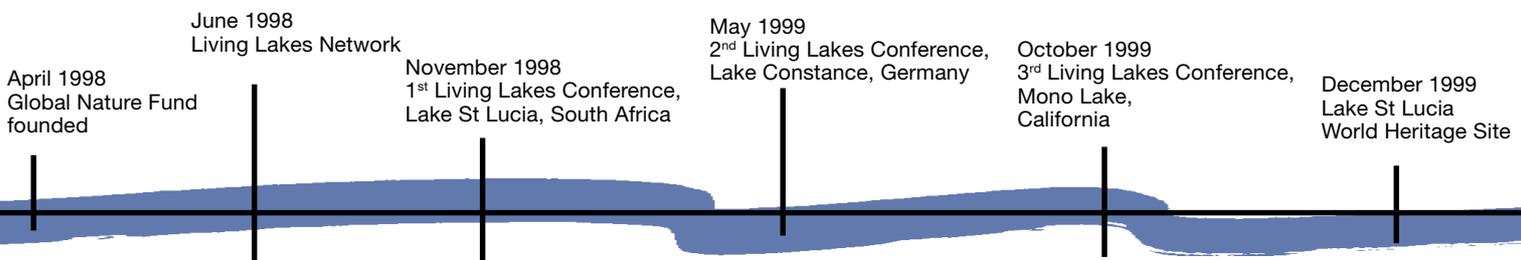
humans yet. The curiosity of scientists to explore the unique ecosystem could jeopardize this pure and undisturbed lake of being contaminated and irreversibly destroyed.

The Living Lakes delegates deliberated on the future extension and opening of the lake network. They decided that in the future more organisations may profit from the expertise and background knowledge of the network as associated members and use it for their PR work without becoming a full member with the right of vote.

During the Conference GNF's „Best Conservation Practice Award“ was awarded to Dr. Noly Zaloumis, a pioneer of nature conservation at Lake St. Lucia, Beki Nomandla, headmaster of Silethukukhanya School at Khula Village and The Bateleurs, an environmental flying squad for exceeding achievements, and efforts in the field of nature conservation and environmental education.

A two-day excursion to the Greater St. Lucia Wetlands Area was part of the conference. Fieldtrips in Africa's oldest protected area included visits to environmental education projects in the Zulu Village Khula, to sustainable tourism projects, and a boat trip on lake St. Lucia allowed studying the impressive wildlife.

Following the Living Lakes conference, GNF and the Living Lakes partner organisations presented the conference results and innovative lake projects through exhibitions and side



events at the World Summit on Sustainable Development in Johannesburg. The Living Lakes project was shown in the Ubuntu-Village within the framework of the official best-practice exhibition. Additionally, Living Lakes was present in the WaterDome, a platform for professional representatives and projects of the water sector. The résumé for Living Lakes is positive: Around 10,000 World Summit guests learned about the lake partnership and the need to protect lakes and freshwater resources world wide. The participation was supported by the Deutsche Bundesstiftung Umwelt (DBU) and Unilever.

Zusammenfassung der 7. Living Lake-Konferenz

Nahezu 150 Teilnehmer aus 25 verschiedenen Ländern kamen zur 7. Internationalen Living Lakes-Konferenz nach Südafrika. Unter dem Motto „Umsetzung der Agenda 21 in Seenregionen“ präsentierten die Vertreter von Umweltverbänden, Unternehmen und Behörden ihre konkreten Modelle und Praxisbeispiele von effektiven Naturschutzmaßnahmen. Vorbilder für die erfolgreiche transnationale und interdisziplinäre Zusammenarbeit findet man an den 23 Seen des internationalen Living Lakes-Netzwerkes, zum Beispiel am Weltnaturerbegebiet des St. Lucia-Sees in Südafrika, am Bodensee in Deutschland, Schweiz und Österreich sowie an der Laguna de Bay in den Philippinen. Die Delegierten aller drei Seen präsentierten auf der Konferenz aktuelle Agenda 21-Projekte und Strategien.

Dr. Ben Ngubane, südafrikanischer Wissenschaftsminister, betonte in seiner Eröffnungsrede, dass nachhaltige Entwicklung nur durch gemeinsames Handeln von Regierungsbehörden, dem Privatsektor und der Zivilgesellschaft verwirklicht werden kann. Prof. Dr. Klaus Töpfer, Exekutivdirektor der Umweltbehörde der Vereinten Nationen (UNEP), war Hauptredner der 7. Living Lakes-Konferenz. Er unterstrich die Bedeutung dieser Konferenz als eine der zentralen Veranstaltungen zum Thema Seen- und Wasserschutz im Vorfeld des Weltgipfels. Auch Gila Altmann, damalige Staatssekretärin im Bundesumweltministerium, betonte die Bedeutung von internationalen NGO-Netzwerken wie Living Lakes für die erfolgreiche Umsetzung der Rio-Vorgaben. Professor Wolfgang Engelhardt, stellvertretender Vorsitzender des Kuratoriums der Deutschen Bundesstiftung Umwelt (DBU) und Ehrenpräsident des Deutschen Naturschutzrings (DNR), wies in seinem Vortrag auf die immense Bedeutung der Erhaltung und des Schutzes der begrenzten Trinkwasserreserven für nachfolgende Generationen hin.

Vier Seenkandidaten wurden in das internationale Netzwerk aufgenommen. Unter ihnen so prominente Vertreter wie der Viktoriasee, Afrikas größter See, an den die drei Staaten Kenia, Tansania und Uganda angrenzen. Die größte Bedrohung sind die Einführung exotischer Pflanzen und Tiere wie der räuberische Nilbarsch oder die wuchernde Wasserhyazinthe, die für den Rückgang oder gar die Ausrottung einheimischer Arten verantwortlich sind. Die Living Lakes-Kandidatenorganisation am Viktoriasee ist die kenianische Nichtregierungsorganisation OSIENALA.

A group of elephants was re-introduced to Greater St. Lucia Wetland Park to improve the tourism potential of the area.



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Ähnlich sind die Probleme am zweiten neuen Seenkandidaten Poyang, dem größten See Chinas. Flutkatastrophen und Erosionsprobleme sind in dieser Gegend sehr gravierend. Die Living Lakes-Organisation am Poyang-See ist die Nichtregierungsorganisation MRLSD (Verein zur nachhaltigen Entwicklung der Berg-Fluss-Seenregion).

Der dritte neue Seenkandidat, der Chapala-See, ist Mexikos größter See und ist extrem gefährdet völlig auszutrocknen. Er leidet an der zunehmenden Ableitung von Wasser von seinen Zuläufen für Bewässerung und die Versorgung der Metropolen Guadalajara und Mexiko City. Sofortige Hilfe ist zum Schutz des einzigartigen Naturparadieses in Mexiko nötig. Die Living Lakes-Kandidatenorganisationen sind Fundación Cuenca Lerma Lago Chapala und Sociedad de Amigos del Lago de Chapala.

Die Seen Võrsjärv und Peipsi, die durch ein Flusssystem miteinander verbunden sind, sind der vierte neue Kandidat. Wie an vielen anderen Seen ist das größte Problem die Eutrophierung, die durch den hohen Nährstoffeintrag verursacht wird. Die Estnische Stiftung für Naturschutz (ELF) und das Peipsi-Centre für Grenzüberschreitende Zusammenarbeit (CTC) sind die Living Lakes Organisationen für diesen baltischen Seenkomplex.

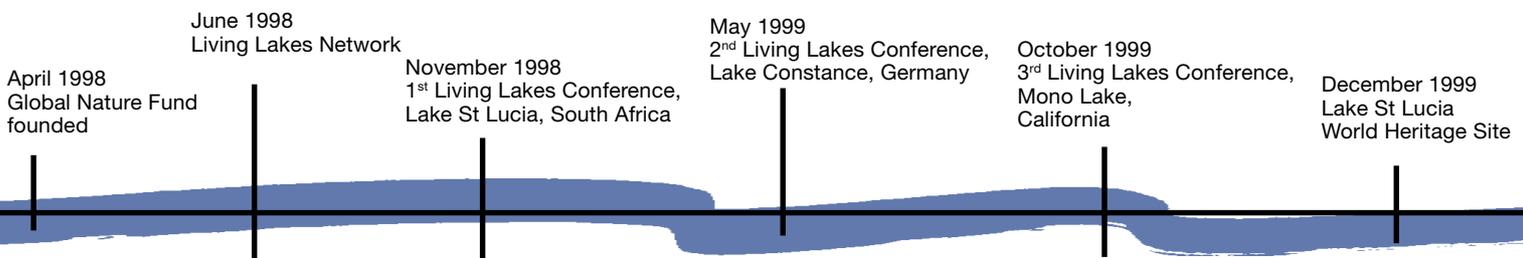
Als erster Ehrensee des Living Lakes-Netzwerks wurde der antarktische Wostok-See aufgenommen. Das Seennetzwerk weist damit auf die Einzigartigkeit dieses Naturerbes hin. Der Wostok-See ist mit circa 35 Mio. Jahren der älteste See der Welt und wurde noch nie vom

Menschen beeinträchtigt, da er seit 15 Millionen Jahren unter einer dicken Eisschicht liegt. Wahrscheinlich enthält der 10.000 km² große See unzählige Bakterien und Mikroorganismen mit einem einzigartigen, isolierten Genpool aus der Zeit, in der die Antarktis mit grünen Wäldern bedeckt war.

Der Living Lakes-Preis für herausragenden Einsatz im Naturschutz („Best Conservation Practice Award“) wurde auf der Konferenz an Dr. Noly Zaloumis, Beki Nomandla, Direktor der Silethukukhanya Schule in Khula Village und The Bateleurs, Flieger für den Naturschutz, für ihre bemerkenswerten Leistungen im Umwelt- und Naturschutz in Südafrika vergeben.

Auf dem anschließenden Weltgipfel in Johannesburg präsentierten der GNF und die Living Lakes-Partner vom 26. August bis 4. September 2002 Konferenzergebnisse und Seenschutzprojekte. Rund 10.000 Besucher, darunter viele Schulgruppen, informierten sich auf zwei Living Lakes-Ausstellungen über das internationale Seennetzwerk. Zahlreiche Kontakte zu interessanten Organisationen und potentiellen Partnerseen wurden geknüpft. Darüber hinaus boten zwei vom GNF organisierte Diskussionsveranstaltungen zu den Themen „Schutz von Seen und Frischwasserreservoirs“ sowie „Nachhaltige Entwicklung und Renaturierung von Feuchtgebieten und Seen“ deutschen und internationalen Experten wichtige Gelegenheit zum Erfahrungsaustausch. Unterstützt wurde die Living Lakes-Präsentation auf dem Weltgipfel durch die Deutsche Bundesstiftung Umwelt (DBU) und Unilever.

Press conference with Dr. Andrew Venter, Wildlands Trust, Marion Hammerl-Resch, GNF, Jörg Dürr-Pucher, GNF, Dr. Ian Player, Wilderness Foundation and Andrew Muir, Wilderness Foundation.



Dr. Ben Ngubane

Minister of Arts, Culture, Science and Technology, South Africa

I would like to extend a particularly warm word of welcome to my colleague, Ms. Gila Altmann, Germany's Deputy Minister for the Environment, those representing our partners, Marion Hammerl-Resch, President of the Global Nature Fund, Dr. Klaus Töpfer, Executive Director of the United Nations Environment Programme, Dr. Ian Player, the Wilderness Foundation, South Africa, Dr. Wolfgang Engelhardt, Honorary President of the German League for Nature, Conservation and Environment Protection, Christopher Köpke, Chairman of DaimlerChrysler, South Africa, Mr. Doug Bailie, Chairman of Unilever, Ms. Deborah Horn, marketing manager of Lufthansa, South Africa, the delegations from the Philippines and Germany who have come to share „Best practise“ experiences on Laguna the Bay and Lake Constance and, of course, our delegation concerned with St. Lucia.

Ladies and Gentleman it is a great honour to welcome you to the 7th International Living Lakes Conference. We have less than a week to the World Summit on Sustainable Development which will crown the ten years since Rio and the adoption of Agenda 21. The global focus has grown from programmatic interventions for the protection of the environment to that of sustainable development taking into account people, our planet and greater prosperity for all.

Countries are challenged as never before to examine the sustainability of their actions in terms of effect, now and into the future, on society, the economy and the environment. This requires actions on the part of government at all levels, private sector and civil society - not disjointed, self serving actions but actions undertaken in partnership and integrated within the broader development imperatives of nations, regions and the world.

It can so easily happen that developing countries „cave in“ under the pressure of meeting basic development needs by ignoring the impact that current development actions may have on their societies future needs and the „health“ of the

environment. With a starving population to feed there may even be suspicions raised that any support for maintaining ecosystems is intended to accommodate the desires of those who can afford to spend time enjoying nature at it's best.

To place particular attention on the tensions that exist, I must add that lakes are sensitive ecosystems and at the same time very attractive for human activities. All lake regions are also vulnerable to environmental pollution. UNEP has calculated that more than 1.4 billion people are faced with limited and low quality drinking water. Lake areas are not national features but can include man-made landscapes, recreation areas for tourists and drinking-water-reservoirs. They are also gathering places for migratory birds and habitats for animals and plants - for example more than 800 hippos, about 530 species of bird and an impressive reptilian population have been recorded in Lake St. Lucia.

Estimates put the figure for prawns and crabs removed from Lake St. Lucia through illegal fishing activities in 1999 at 1000 kilograms a day. Since prawns are at the bottom of the food chain all fish are affected by their depletion. Every week the rangers remove about two kilometres of illegal gill nets from the lake.

The competition between social, economic and environmental interests make it important to involve society from the very beginning in examining the value of the natural resource base and in appreciating how societies actions can be structured into harmony with the ecosystem. I must caution against assumptions that indigenous communities are ignorant about these challenges. It has been proven time and again that indigenous knowledge surpasses conventional science in respect of long term sustainable living off the land. Unfortunately, decades of unrestrained economic activities have had a negative impact on the environment. Conventional approaches to technology tend to be driven purely by market forces. A judicious system of indigenous knowledge and conventional science, lead to powerful strategies to rehabilitate and conserve the environment on which we are so dependent. This requires strong partnerships, mutual respect and greater openness to new types of solutions for sustainability.

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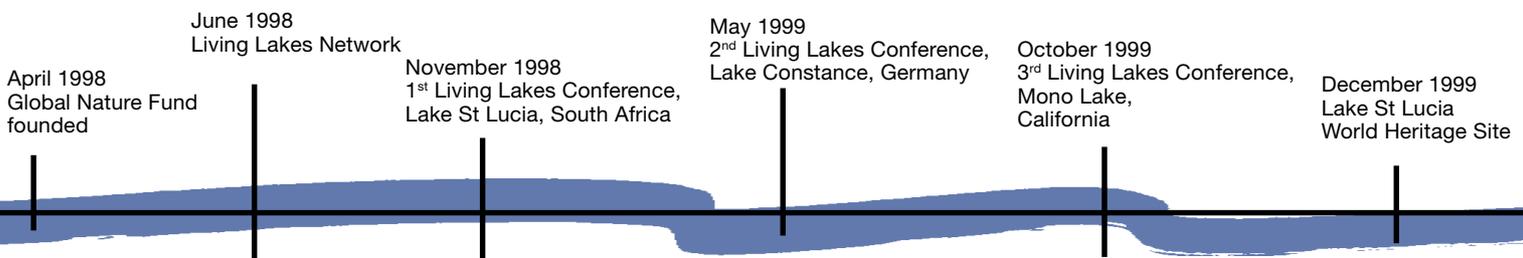
Lake St. Lucia lies at the centre of the „Greater St. Lucia Wetland Park“ the oldest protected area in Africa and a World Heritage Site. In fact the Greater St. Lucia Wetlands area hosts a greater biodiversity than South Africa’s world renowned Kruger National Park. At Lake St. Lucia local NGO partners within the Living Lakes network include the Wilderness Foundation and the Wildlands Trust, the key corporate partner is Unilever South Africa. The project’s primary aim is to protect the lake and its environment through the implementation of projects that demonstrate, to local communities, the importance of sustainable utilisation of their natural resources.

The project improves and strengthens local education standards and social facilities. Recent projects include the installation of computer education centres, training teachers in IT and environmental skills and „greening“ the local village with indigenous trees. Nature trails for tourists have been established which are administered by local residents. A waste recycling program and a sustainable water management program have been developed and implemented and local children have been enabled to record and preserve their cultural heritage.

Environmental projects include community rehabilitation of indigenous forest domains, maintaining local water sources and providing resources to educate children on environmental issues.



Estimates put the figure for prawns and crabs removed from Lake St. Lucia through illegal fishing activities in 1999 at 1000 kilograms a day. Every week the rangers remove about two kilometres of illegal gill nets from the lake.



In addition, parts of the indigenous „sacred“ Dukuduku forest have been rehabilitated. Alien plants were cleared from the forest with the help of the Unilever volunteers, 80-100 pupils from the local school, and volunteer staff from KZN Wildlife, the Department of Water Affairs and Forestry and the Wildlands Trust staff. The indigenous species endemic in the region have been replanted.

At a local level the St. Lucia programme has been built around the key trusts of Sustainable Community development and Environmental Awareness Education. Within these two principles, a well-defined model has been developed. It is readily replicable, and it is intended to duplicate the strategy within the neighbouring communities in 2003.

This project is an excellent example of partnership reflected in the depth of involvement from both business and NGO sectors. The businesses do not just provide funding, but also contribute its own knowledge, human resources and expertise.

I would like to conclude in a word of appreciation for the support that South Africa, and the Greater St. Lucia Wetlands Area has enjoyed from the Global Nature Fund over the past of years as well as the contributions and active participation by the private sector, Unilever in particular and civil society partners. I wish you a productive 7th Conference and a pleasant stay in South Africa.

Dr. Ben Ngubane

Minister für Kunst, Kultur, Wissenschaft und Technologie, Südafrika

Seen sind sensible Ökosysteme, attraktiv für den Menschen und gefährdet durch Umweltverschmutzungen. Seengebiete sind auch von Menschenhand geschaffene Landschaften, Erholungsgebiete und Trinkwasserreservoir. Seen wie z.B. der St. Lucia See sind wichtige Rastplätze für Zugvögel und Habitate für Tiere und Pflanzen.

Schätzungen zufolge wurden 1999 am St. Luca See täglich 1000 kg Garnelen und Krabben illegal gefangen. Jede Woche entfernen die Ranger zwei Kilometer illegale Netze aus dem See. Weil Garnelen am Anfang der Nahrungskette stehen, sind auch die Fische betroffen.

Die Gesellschaft muss von Anfang an einbezogen werden in die Beurteilung der Werte natürlicher Ressourcen und der Einschätzung, wie der Mensch umweltgerecht agieren kann. Immer wieder zeigt sich, dass traditionelles Wissen der klassischen Wissenschaft bei der Förderung nachhaltiger Lebensformen voraus war. Die herkömmlich, technokratische Herangehensweise, stark geprägt von den Marktkräften, hatten einen negativen Einfluss auf Natur und Umwelt. Aber traditionelles Wissen und herkömmliche Wissenschaft vereint, führen zum Schutz der Umwelt. Das erfordert gegenseitigen Respekt, starke Partnerschaften und Offenheit gegenüber neuen nachhaltigen Lösungen.

Der Greater St. Lucia Wetland Park ist das älteste Naturschutzgebiet Afrikas und Weltnaturerbe. Er beherbergt eine größere Artenvielfalt als der bekannte Krüger Nationalpark. Die Wilderness Foundation und der Wildlands Trust engagieren sich in Zusammenarbeit mit Unilever für den Schutz der Seenlandschaft durch Projekte, die die Kommunen bei einer nachhaltigen Nutzung ihrer Naturressourcen unterstützen. Dies ist ein exzellentes Beispiel für eine erfolgreiche Partnerschaft zwischen Umweltverbänden und Wirtschaft.

Gila Altmann

Deputy Minister, Ministry of Environment, Nature Conservation and Nuclear Safety, Germany

Thank you very much for inviting me to speak to you on behalf of my Minister, Mr. Trittin.

For me the last two days were very impressive, full of contradictions, torn between the incredible beauty of St. Lucia and the huge degradation of land by eucalyptus and sugarcane plantages.

The agenda of this truly global summit will comprise all the topics that we need to address if we want to achieve a sustainable life style in the future. I hope this summit will generate new energy towards implementing the legacy that the UNCED in Rio 1992 has left us.

Most people in the world, however, will not measure how sustainable their life is by the number of political documents or the attendance of global conferences. They will measure it in

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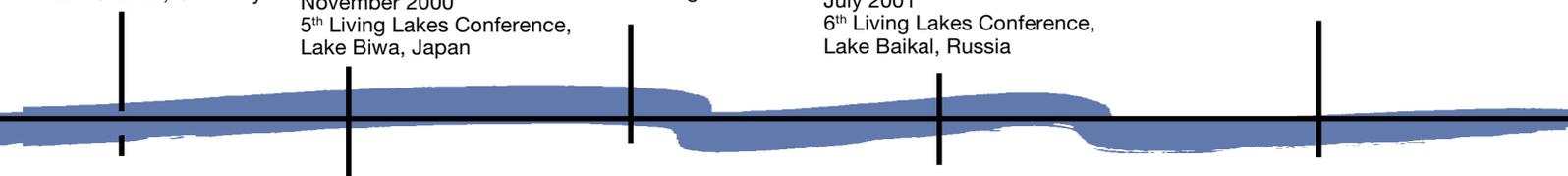
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terms of improvements to their everyday lives. They will measure it in terms of whether their children will have the opportunity to satisfy the basic needs of human beings like food, health and education.

They will measure it in many cases by asking whether they have a reliable access to drinking water or not.

An estimated 1.3 billion people across the world lack access to a reliable supply of drinking water and to 2.5 billion people have no access to proper sanitation. It is no coincidence that the topic of water is one of the major topics of the World Summit - the focus on women and their role in this context can't be excluded from.

Most of the people with water and sanitation problems live in Africa and Asia. It's mainly women who have to organise drinking water for the family - while the distances to fetch water are getting longer, that means more and more time is lost where the women - and girls - otherwise could have earned money or go to school. It is also mainly women who deal with to deal with the problems arising from lack of proper sanitation and family diseases in the follow up.

In less than 25 years two-thirds of the world population will be living in water-stressed countries. By 2020, water use is expected to increase by 40 per cent, and 17 per cent more water will be required for food production to meet the needs of the growing population.

As already mentioned lack of access to safe water supply and sanitation results in enormous cases of water-related epidemics, and more than an average of 5 million deaths, every year.

It is also a barrier to economic productivity in many developing countries.

The year 2002 was declared the international year of the mountains. Half of the water consumed by people comes from mountains. But the necessary ecosystem to keep the water coming is endangered by melting of the glaciers, wars, deforestation and tourism.

Given these grave differences in water availability throughout the world, I am afraid that future conflicts between countries in the competition for water resources and environmental refugees will not remain science fiction.



Gila Altmann, Deputy Minister at the German Ministry of Environment, at the 7th Living Lakes Conference

Water will become - in some cases has already become - a factor that will decide between peace and war.

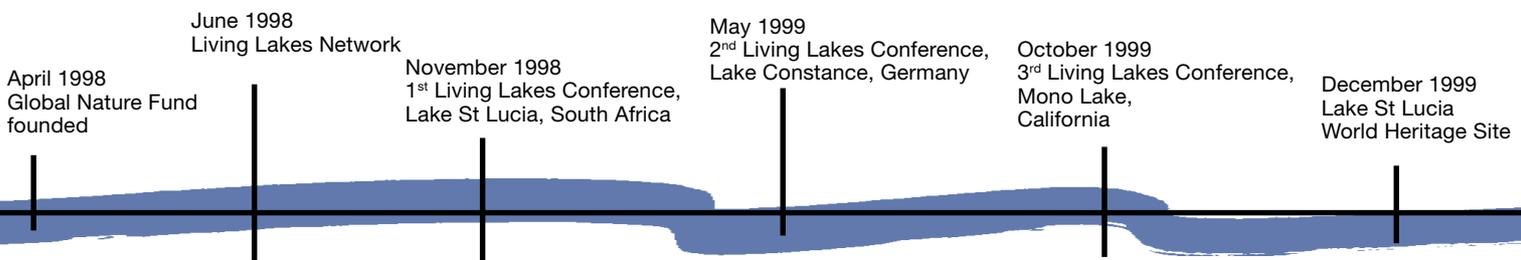
Extremely alarming in this context are also the predictions of scientists about the consequences of the human induced climate change.

Irregularities in climate and weather are about to intensify the contrast between water-rich and water-poor countries.

The recent floods in parts of Eastern and Western Europe with billions Euro of damage give us an idea on how climate changes can all of a sudden cause a lot of suffering and damage, in context with other indicators like canalising the rivers, degradation of the soil by intensive agriculture, surface sealing und the destruction of the natural flood plains.

There is no alternative to a harmonized approach of the world community for solving those problems than - among others - to adopt and implement the Kyoto Protocol.

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About ten years ago the Conference of the United Nations for Environment and Development (UNCED) set a frame in chapter 18 of Agenda 21 for protecting the quality and quantity of water and was put high on the UN-agenda.

In December 2000, the United Nations declared the coming year 2003 the International Year of Freshwater, thus once again underlining the importance that freshwater has for the development of human cultures.

In December 2001 Germany hosted an International Conference on Freshwater, the results of which have been transported into the preparatory process for the World Summit.

Water will be one of the most outstanding sectoral issues of the World Summit.

One of the most important recommendations of the Conference - to set up a similar goal on access to proper sanitation as it already exists as Millennium goal for access to safe drinking water - is one of the, unfortunately, still controversial points for discussion and solution in Johannesburg. I sincerely hope that we will be able to make an essential step forward on this issue in the next days.

Beside mountains lakes supply millions of people all over the world with water, food and numerous other resources. The Living Lakes Initiative demonstrates how people from different countries and cultures can interact with each other and exchange experience and ideas for a mutual goal: the sustainable management of large and very diverse lakes - if I compare lake Baikal and St. Lucia.

In the coming days you will exchange experiences of three lake areas: Lake St. Lucia in the Greater St. Lucia Wetland Park which many of us have visited, Laguna de Bay in the Philippines and Lake Constance, which is shared by Germany, Switzerland and Austria.

This exchange of expertise will focus on the necessity of interaction of various stakeholders, be they governmental authorities or members of various major groups in civil society towards implementing Agenda 21 in the context of lake regions.

Projects like St. Lucia are not only regionally important but on a global scale. They preserve biodiversity, they have a positive effect on the climate and they can give as an example of sustainable use.

The global community has to learn, that this kind of conservation is a global service for the benefit and sake of the whole world - and like for any other service we should pay for it on a global level. There is still a long way for this kind of thinking, but we should be aware, that there is little time left.

I am certain that this conference will enable an efficient exchange of experience among the many different members of the Living Lakes network.

Gila Altmann

Staatssekretärin im Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit, Deutschland

Der kommende Weltgipfel in Johannesburg wird alle Aspekte ansprechen, die für einen zukunftsfähigen Lebensstil notwendig sind und hoffentlich dem „Rioprozess“ neuen Auftrieb geben. Die meisten Menschen werden aber die Nachhaltigkeit ihres Lebens an Verbesserungen im täglichen Leben in Bereichen wie Trinkwasser, Nahrung, Gesundheit und Bildung messen, und nicht an der Anzahl politischer Dokumente und Konferenzen.

Geschätzten 1,3 Milliarden Menschen fehlt eine verlässliche Trinkwasserversorgung und 2,5 Milliarden Menschen geeignete sanitäre Einrichtungen. Die meisten Betroffenen leben in Afrika und Asien und sind oft Frauen, die für die Familie lange Wege und viel Zeit benötigen, um Trinkwasser zu besorgen. Zeit, die dann für Arbeit und Bildung fehlt.

2020 wird der Wasserverbrauch um 40 % gestiegen sein, davon 17 % für die Nahrungsproduktion für eine wachsende Bevölkerung. In weniger als 25 Jahren werden zwei Drittel der Menschheit in Regionen mit Wasserknappheit leben. Das bedeutet etwa fünf Millionen Tote jährlich. Hinzu kommen Epidemien. Die Wirtschaft von Entwicklungsländern wird sich unter diesen Umständen kaum entwickeln können.

Die schwerwiegenden regionalen Unterschiede in der Verfügbarkeit von Wasser können in Zukunft zu Umweltflüchtlings und zum Kampf um Wasserressourcen führen - und über Krieg und Frieden entscheiden. Besonders alarmierend ist die wissenschaftliche Erkenntnis,

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dass der Klimawandel den Gegensatz zwischen wasserreichen und wasserarmen Gegenden verschärft. Die jüngsten Hochwasser in Europa geben uns eine Idee davon, welche Schäden der Klimawandel zusammen mit Flussbegradigung, Intensivlandwirtschaft, Versiegelung und Verbau von Retentionsflächen anrichten könnte. Nur eine Umsetzung des Kyoto-Protokolls durch alle Staaten kann diese Probleme lösen.

Bereits auf der Konferenz für Umwelt und Entwicklung (UNCED) vor 10 Jahren wurde die Bedeutung des Wasserschutzes unterstrichen. 2000 rief die UN das Jahr 2003 zum Internationalen Jahr des Süßwassers aus. Im Dezember 2001 fand in Deutschland die Internationale Süßwasserkonferenz statt, deren Ergebnisse in den Weltgipfel eingehen. Auf dem Weltgipfel wird angestrebt, eine verbindliche Aussage zur Verbesserung der sanitären Grundversorgung weltweit zu erzielen.

Seen versorgen Millionen Menschen mit Wasser, Nahrung und vielem anderen. Living Lakes zeigt, wie Menschen aus verschiedenen Ländern und Kulturen aufeinander einwirken und Ideen und Erfahrungen austauschen können für ein beiderseitiges Ziel: das nachhaltige Management großer und sehr unterschiedlicher Seen.

Grey Heron, a common guest at lake St. Lucia.



Marion Hammerl-Resch, new president of Global Nature Fund, welcomed the delegates at the Roode Vallei Conference Hall.

Marion Hammerl-Resch

President, Global Nature Fund, Germany

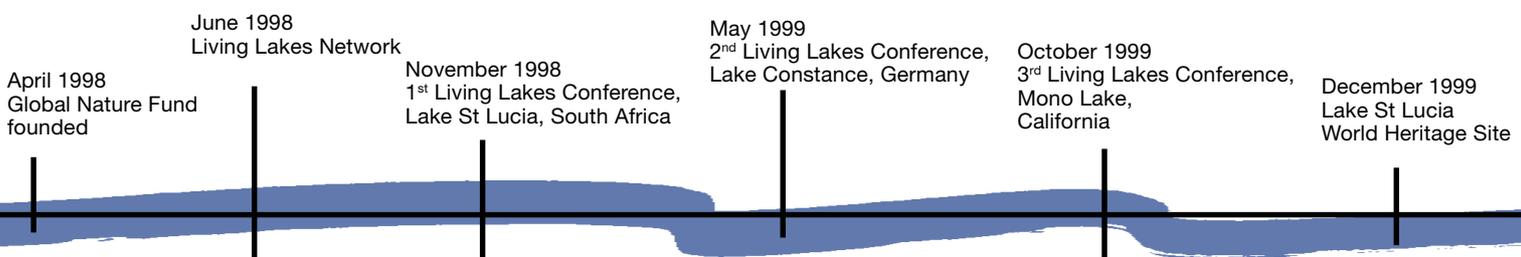
This is my seventh Living Lakes Conference and a very special one for several reasons:

It's my first conference as President of the Global Nature Fund and I am proud to welcome you at the Living Lakes Conference in Johannesburg directly prior to the World Summit 2002.

Prof. Gerhard Thielcke, who is now Honorary President of the Global Nature Fund, asked me to send his best wishes to all of you. I'm sure his thoughts are with us these days and I would ask you to give him a big hand for the precious contribution he has made for the Living Lakes Network up to now.

The first Living Lakes Conference was held in the St. Lucia Greater Wetland Park in 1998. I remember this conference very well, not only because it was the real start of implementing the Living Lakes Network, but also because it was the first international conference dealing with environmental protection and sustainable development in KwaZulu Natal.

It marked the designation of St. Lucia as a UNESCO World Heritage Site. I'm looking forward to the first panel of today which will



present some experiences of the last four years of this new and most important period for St. Lucia.

The main objective of the Living Lakes Network is to protect lakes and wetlands and to support sustainable development in these areas.

To reach this objective, our partners are following the guidelines of Agenda 21. All lake partners have a different experience of the Agenda 21 process. During this conference we will hear and discuss three case studies representing the wide range of experience within the Living Lakes Network St. Lucia in South Africa, Laguna de Bay in the Philippines and Lake Constance bordering Germany, Switzerland and Austria. We will present and discuss different ways of how authorities, enterprises and environmental and social NGO's work together to put Agenda 21 into practice.

Dear Mr. Töpfer: the Living Lakes Network offers the World Summit its practical experience regarding Agenda 21 in lake regions all over the world.

With approval of the World Heritage Status of St. Lucia, the local communities, the regional government of KwaZulu Natal and the South African Government accepted to define and to implement rules of sustainable development into the policies concerning this ecologically, socially and economically unique region.

At the end of the conference we will present the „Principles of Sustainable Development“ as another contribution of the Living Lakes Network to the World Summit in Johannesburg.

The draft developed up to now demonstrates how these twelve principles could be adapted towards a sustainable use of lakes and wetlands - not only in Europe but in the whole world.

This draft is not complete and will be improved during the conference. It shows in which direction a legal framework to improve sustainable development should go. The „Principles of Sustainable Development“ do not provide a definition of sustainability, because we - the Living Lakes Network - think that during the past ten years a lot of time has been spent discussing theoretical definitions of sustainability without the experience to put them into practice.

These principles are a useful checklist and if one of those is not fulfilled it indicates that the development is not sustainable.

Dear Mr. Töpfer: The Living Lakes proposals towards „Principles of Sustainable Development“ combined with our experience to put Agenda 21 into practice are our contribution to the World Summit 2002.

Before finishing, I would like to thank our South African Partners Wilderness Foundation and Wildlands Trust. I would also like to thank our economic partners and the staff of GNF for preparing and providing everything for this conference.

I wish all of you a successful Living Lakes Conference and together with you I look forward to a fruitful World Summit 2002.

Marion Hammerl-Resch

**Präsidentin des Global Nature Fund,
Deutschland**

Das Hauptziel des Living Lakes Netzwerks ist es, Seen und Feuchtgebiete zu schützen und die nachhaltige Entwicklung in diesen Regionen zu unterstützen. Dazu orientieren sich unsere Partner an den Inhalten der Agenda 21. Während der Konferenz werden drei Fallstudien vom St. Lucia-See, der Laguna de Bay und vom Bodensee die Breite der unterschiedlichen Erfahrungen darstellen; sie zeigen verschiedene Wege, wie Behörden, Unternehmen, Umwelt- und soziale Organisationen zusammenarbeiten können, um Agenda 21-Prozesse zu entwickeln und umzusetzen. Mit der Anerkennung St. Lucias als Weltnaturerbe begannen die Gemeinden, die regionale Regierung und die südafrikanische Regierung, Richtlinien für eine nachhaltige Entwicklung der ökologisch, sozial und wirtschaftlich einmaligen Region zu erarbeiten und umzusetzen.

Die „Zwölf Prinzipien nachhaltiger Entwicklung“ zeigen, wie Seen und Feuchtgebiete nachhaltig genutzt werden können und wie Gesetzeswerke aussehen sollten. Sie sind keine Definition von Nachhaltigkeit. Sie sind vielmehr eine Checkliste - wenn ein Prinzip nicht erfüllt ist, ist die gesamte Entwicklung nicht nachhaltig.

Diese Prinzipien und die Agenda 21-Erfahrungen von Living Lakes sind der Beitrag der Seepartner zum Weltgipfel 2002 in Johannesburg.

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Doug Baillie

**National Manager,
Unilever South Africa**



Doug Baillie, National Manager of Unilever South Africa.

Unilever is committed to sustainable development. Our mission is to meet present day needs without compromising the ability of future generations to meet their needs.

We believe that by constantly evolving to meet consumers' changing needs, we can continue to develop our business in both a profitable and responsible way.

With more than two-thirds of our raw materials sourced from agriculture, we are acutely aware that the survival of much of our business depends on a healthy and productive environment. This is why we have been reducing the environmental impacts in manufacturing and are tackling issues in the wider supply chain.

In 2001 we saw significant change in our manufacturing operations and it has underlined the challenge of setting targets to achieve continuous improvement in environmental performance. While we have improved our eco-efficiency performance in most areas, we did not meet all of our ambitious targets. But we are confident that we are back on track this year.

We focus on three sustainability initiatives in agriculture, fisheries and water.

Agriculture

We have made good progress in developing sustainable agriculture guidelines for the crops in our programme. And we are sharing this information to encourage others, so that sustainable agriculture can become the norm worldwide.

With more than two-thirds of our raw materials coming from agriculture, we have always aimed for a responsible approach to farming practices. But in recent years it has become clear that increasing environmental and social pressures on agriculture - which threaten our supply chains - demand a more radical attitude. This has led to Unilever's Sustainable Agriculture Initiative.

Through this highly ambitious programme that engages with a broad group of stakeholders,

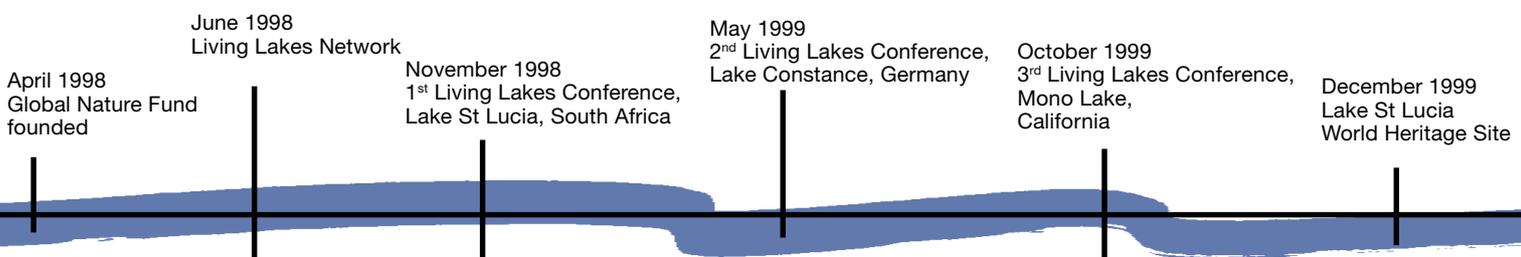
we have been developing standards for sustainable farming practice. Guidelines have already been agreed for palm oil and tea. These will be followed shortly by guidelines for peas and spinach. And guidelines for tomatoes are expected in 2003. These and subsequent guidelines will be made public on a website, which is currently under construction. Our progress has attracted interest from the world's other major food producers, with whom Unilever is keen to share its learning.

Fisheries

The world's major fisheries are under threat. In recent years, catches of the most important species for human consumption are at their lowest levels. Some fish species are in short supply and prices are higher than they have been in over a decade. Incomes and jobs are threatened and consumers are alarmed about the future of the fish that they rely on to feed their families.

We have a programme of co-ordinated action across Unilever's frozen and other fish businesses, that aims to meet our objective of sourcing all supplies from sustainable fisheries by 2005. Unilever companies around the world are working closely with the fish supply industry, to help it to move towards certification standards set by the Marine Stewardship Council (MSC). We use New Zealand hoki in parts of Europe, sourced from fisheries certified as well managed by the MSC.

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Water

We share the international community's concern for the world's water systems, which are under heavy pressure. In our clean water initiative, as in other areas, we work with partners to achieve maximum impact and to help assure the future availability of clean, potable water. Central to this are projects to recover and conserve natural resources and partnerships to build and share knowledge about the efficient management and protection of water quality. In 2001, working with Forum for the Future, we published a booklet on the management of water catchment areas, using the Sustainable Water and Integrated Catchment Management (SWIM) principles. This is a practical management tool developed with an international panel of water experts to focus on sustainable local water management projects. We remain a major sponsor of the Living Lakes programme managed by the Global Nature Fund which restores and protects lakes in four continents.

Our Co-Chairman, Antony Burgmans, chairs the Business and Industry CEO Panel on Water, made up of chief executives from international companies. The panel, which was formed in 2000 to present an industry perspective at the World Water Forum II, will attend the third forum in Kyoto, Japan to be held in March 2003.

Unilever's Environmental Policy

Unilever's environmental policy applies to all of our companies worldwide. This sets out our commitment to meeting the needs of our customers and consumers in an environmentally sound and sustainable manner, through continuous improvements in environmental performance in all our activities.

Six key environmental performance parameters are used by our manufacturing operations for reporting emissions and setting future reduction targets:

- Total COD (Chemical Oxygen Demand, tonnes)
- Total hazardous and non-hazardous waste
- Total water consumption (M³)
- Total energy consumption (GJ). CO₂ from energy use (tonnes)
- Boiler/Utilities SO_x (tonnes)

Our progress in each of these areas is available in the Unilever Environmental Report, which is posted on the Unilever website.

In South Africa, we have an excellent partnership with Living Lakes, the Wilderness Foundation and the Wildlands Trust, which promote awareness and provides environmental and water education. The project is driven by an enthusiastic group of Unilever volunteers and funding is provided by the company. Many of you will have visited the site and Andrew Kinmont, the project leader, will be sharing our experience with you at this conference. Finally, we sponsor the Unilever Centre for Aquatic Toxicology at Rhodes University. This centre is actively involved in Eco Toxicology Research, assisting with the development of national policy and regulations for the establishment of catchment reserve guidelines and capacity building through training at the university.

As a developing country with sound environmental legislation, South Africa has the opportunity to learn from the mistakes of the developed world. We all need to ensure that our social and economic development does not carry the price tag of our environment. Thank you.

Addendum

Total COD (Chemical Oxygen Demand, tonnes)

COD represents the ingredients and product lost from the full manufacturing process, and mainly arises during cleaning operations. COD is widely used by regulatory bodies to control industrial wastewaters, and to calculate the correct level of charges for downstream municipal wastewater treatment, which is designed to remove most of the COD before the wastewater is discharged to the environment. Typically between 80%-90% of this material.

Total hazardous and non-hazardous waste

Since there is no common international waste classification, the Unilever data are based on the national legal definitions applicable for each site, and are simply the total mass of material disposed of from the site under each classification.

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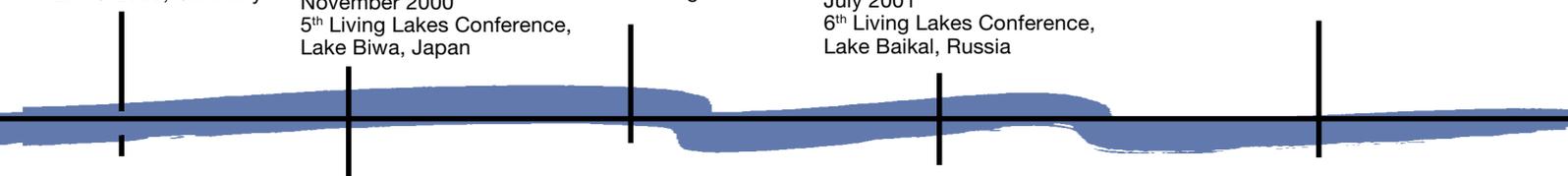
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Total water consumption (M³)

Water consumption is also widely used as a measure of manufacturing performance. It is measured universally in Unilever's factories. The Unilever data represent all water consumed and include water used as an ingredient in products as well as uncontaminated cooling water and wastewater.

Total energy consumption (GJ).
CO₂ from energy use (tonnes)

Energy consumption per tonne of product is widely used as a manufacturing performance indicator. The global warming potential (expressed as tonnes CO₂) has then been calculated from the source energy data using internationally accepted conversion factors derived from the Intergovernmental Panel on Climate Change (IPCC) and the International Energy Agency (IEA).

Boiler/Utilities SO_x (tonnes)

Unilever data are calculated from the total mass of fuel consumed, and its sulphur content, and are expressed in terms of a mass of sulphur dioxide (SO₂). Emissions of SO_x contribute to acid rain potential.

Sharing experiences and learning about best practice models at the 7th Living Lakes Conference.

Doug Baillie

Geschäftsführer, Unilever Südafrika

Unilever hat sich verpflichtet, nachhaltig zu handeln. Mehr als zwei Drittel der von Unilever verwendeten Rohmaterialien kommen aus der Landwirtschaft. Unilever reduziert daher ständig negative Umweltauswirkungen im eigenen Herstellungsprozess und in der Beschaffungskette. Drei Nachhaltigkeitsinitiativen stehen dabei im Vordergrund:

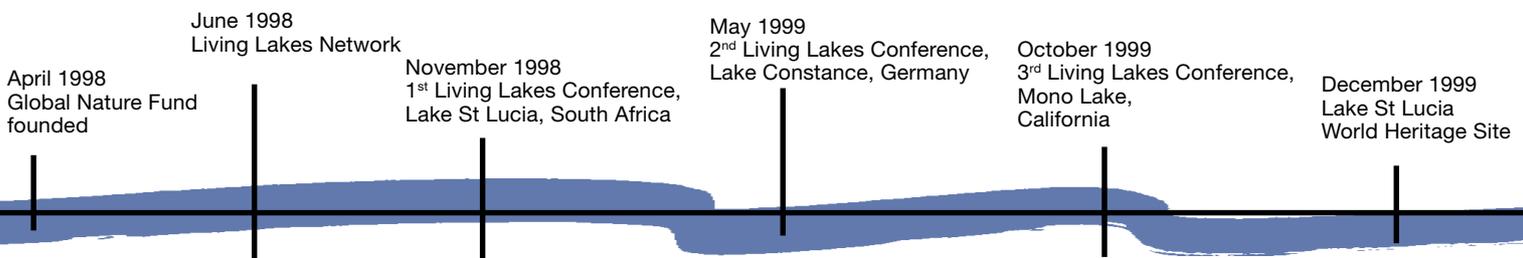
Landwirtschaft: Entwicklung und Austausch von Richtlinien nachhaltiger Landwirtschaft, Entwicklung von Standards für nachhaltige Verfahren in der Landwirtschaft.

Fischerei: Zusammenarbeit mit der Fischindustrie und Unterstützung ihrer Zertifizierung nach MSC-Standard, um die Fischbestände nicht zu gefährden.

Wasser: Förderung von Projekten für Renaturierung und Schutz natürlicher Ressourcen, Partnerschaften zum Aufbau und Austausch von Wissen über Wassermanagement. Beispiele sind die Herausgabe einer Broschüre zum Management von Wassereinzugsgebieten nach den SWIM-Prinzipien und die Förderung des Living Lakes Netzwerkes.

Umweltleitbild: Das Umweltleitbild gilt in allen Unilever-Betrieben und ist im Umweltbericht niedergeschrieben. Sechs Ökobilanzparameter geben über die Emissionen Auskunft und setzen die Ziele für künftige Reduzierungen: Chemischer Sauerstoffbedarf, Sonderabfall und nicht gefährlicher Abfall, Wasserverbrauch, Energieverbrauch, CO₂ aus Energieverbrauch, SO_x.

In Südafrika besteht ein ausgezeichnetes Verhältnis zu Living Lakes, der Wilderness Foundation und dem Wildlands Trust. Unilever ist mit Freiwilligen und mit Fördergeldern am Projekt beteiligt. Des Weiteren unterstützt das Unternehmen das Unilever Zentrum für Aquatische Toxikologie an der Rhodes Universität.





Christoph Köpke, Chairman of DaimlerChrysler South Africa.

Christoph Köpke

**Chairman,
DaimlerChrysler South Africa**

Minister Ngubane, Deputy-Minister Altmann, Mrs Hammerl-Resch, President of the Global Nature Fund, honoured guests, ladies and gentlemen,

I am honoured to be in the company of so many noteworthy environmentalists, conservationists and people passionately interested in conserving our natural heritage. At no time has the preservation of endangered environments been more critical to humankind, than now.

The World Summit on Sustainable Development, taking place at present here in Johannesburg, is creating great awareness for the challenges to providing a balance between the conservation of the natural environment, alleviation of human suffering and responsible industrial development.

DaimlerChrysler South Africa has come to be regarded a responsible corporate citizen. While the accolades are rewarding, our company remains acutely aware of the magnitude of the many problems of poverty, pollution and disease in South Africa, and in Africa. Our parent

company while active globally in social responsibility projects accepts that one conglomerate such as ours can only provide a limited measure of aid and support. More is needed, but merely handing out money is not the route to follow.

Companies around the globe realize that 'getting involved' is what is required. Global synergy is needed - as the adage says, „the whole is greater than the sum of the parts“.

UN Secretary General Kofi Anan recently said „Increasingly companies recognize that they need to combine good business with doing good.“ I would humbly add to this that „doing good collectively is even better!“

And it is in this spirit that DaimlerChrysler worldwide is involved in number of collaborative corporate social investment projects - of which the Living Lakes is one such example.

Allow me to share with you briefly the projects that are supported by DaimlerChrysler in South Africa.

- * **Sports:** Border Cricket Development; NOCSA; DISSA; Sporting bodies
- * **Education:** Wesleyville School; Global Road Safety Programme; Science, Maths & Technology - Sifikile
- * **Arts & Culture:** DCAG/DCSA Awards
- * **Community Development:** Chatsworth Youth Centre
- * **Partnering:** Toys for Africa; WSSD
- * **Environment:** Peace Parks; Water-based Paint System in our Plant; Sisal Project; and of course - Living Lakes
- * **Health & Welfare:** Fighting HIV/AIDS

Our programme on dealing with HIV/AIDS amongst our employees, has gained much recognition locally and abroad. While it is too early to claim success in reducing the rate of infection, we are proud that our programme has been dubbed as the 'blueprint' for corporate South Africa. In 1999 we became the first to provide antiretroviral medication under our medical scheme to HIV+ employees; we were also the first to introduce special provision for HIV/AIDS treatment under our medical scheme for employees and dependant family members on our scheme. DaimlerChrysler's efforts in the war on HIV/AIDS were recently acknowledged

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internationally when the Global Coalition on HIV/AIDS presented an award to our chairman, Jürgen Schrempf.

HIV/AIDS is as much in need of a solution as is global warming, conservation of the rain forests and preservation of our wildlife heritage.

I wish to reiterate my earlier statement - we need to work collectively and collaboratively. By this I mean - governments, business, and communities. It means looking for areas of synergy and avoiding dissonance between the needs of people, industry and the environment.

In the words of Former President Bill Clinton when he made the HIV/AIDS award to our company: „Until we have a common set of values and a common concept of community that can build an integrated global village, we will continue to be frustrated and vulnerable.“

Another criteria if we wish to have any hope of achieving success, is sustainability. Any programme, sponsorship or support must necessarily be sustainable. Many Corporate Giants will say „Of course, we know of the adage about teaching a man to fish and you feed him for a lifetime“. And yet it still amazes me to see how often funds are squandered on projects where very little research into its sustainability or even collaboration with supposed recipient communities is conducted beforehand.

I would like to end on this one thought:

In all the efforts of conservation and preservation of environments and cultures and in the nurturing of prosperity and progress for all - let us not forget our basic responsibility as custodian of this beautiful blue planet!

Christoph Köpke

Vorsitzender, DaimlerChrysler, Südafrika

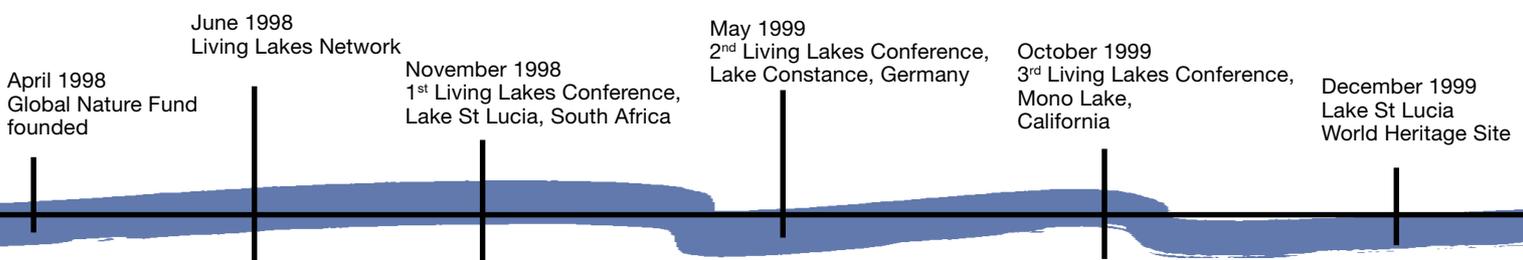
DaimlerChrysler Südafrika wird als verantwortungsbewusster Konzern angesehen. Unser Unternehmen ist sich über das Ausmaß vieler Probleme wie Armut, Umweltverschmutzung und Krankheiten in Südafrika - und in ganz Afrika - bewusst. Firmen in aller Welt haben realisiert, dass es nötig ist, sich zu engagieren. In diesem Sinne investiert DaimlerChrysler in eine Vielzahl von gemeinschaftlichen sozialen Projekte, wie z.B. Living Lakes.

Unser HIV/AIDS Programm für unsere Mitarbeiter hat lokal wie im Ausland Anerkennung gefunden. HIV/AIDS braucht genauso dringend Lösungsansätze wie die Klimaerwärmung, der Schutz von Regenwäldern und die Bewahrung unseres Naturerbes.

Wir müssen zusammenarbeiten, Regierungen, Wirtschaft und Gemeinden. Das heißt, nach Synergien Ausschau halten und Unstimmigkeiten vermeiden zwischen den Bedürfnissen der Menschen, Industrie und Umwelt.

Ein weiteres Kriterium, wenn wir eine Hoffnung auf Erfolg haben wollen, ist Nachhaltigkeit. Jegliche Program-

Lake St Lucia is located in South Africa's north-eastern Province KwaZulu Natal.



me, finanzielle Hilfe und Unterstützung müssen nachhaltig sein. Viele Gelder werden verschwendet, da im Voraus nur sehr wenige Untersuchungen zur Nachhaltigkeit eines Projektes durchgeführt werden.

Bei allen Bemühungen für Natur- und Umweltschutz, Kultur und Wohlstand und Fortschritt für alle - lassen Sie uns nicht unsere grundsätzliche Verantwortung als Bewahrer dieses wunderschönen blauen Planeten vergessen!

Deborah Horn

**Marketing Manager,
Lufthansa South Africa**



Deborah Horn, Marketing Manager of Deutsche Lufthansa South Africa.

I am honoured to be able to represent both Lufthansa Germany and South Africa at today's conference. Especially as a South African for whom South African environmental issues are a personal passion.

Why should an airline support a lake conservation project?

Even though it may not be that clear at first glance, for Lufthansa there is an obvious link: lakes and wetlands are important habitats for migratory birds. And this includes the crane, the bird that has been depicted in our company's logo since its inception in 1926 and the South African national bird, the Blue Crane, that has been depicted on South African stamps and coins. Lufthansa has worked very actively for many years to protect the crane and its habitats.

Anyone involved in the protection of migratory birds such as cranes quickly realizes the importance of international cooperation. Of course, environmental problems do not recognise national borders. In the same way that Lufthansa can only be successful as an international airline by joining worldwide alliances such as Star Alliance, nature conservation needs global networks to attain its objectives. Cooperation, exchange of ideas and mutual support across national boundaries and continents are required. This was the principle behind the foundation of the Living Lakes network, and another good reason for us to support it right from the start.

The Living Lakes network goes beyond international cooperation by adopting a holistic approach. Its program is not simply to conserve natural landscapes as protected enclaves, but rather to search for new ways of integrating nature with business and society. In the regions where it is active, Living Lakes develops solutions that give local people new, long-term opportunities for development without jeopardising the ecological balance.

And this brings us to the theme of this conference, which is also the third reason why Lufthansa supports this ambitious project: as a business, we are aware of our civic and social responsibilities and want to make our contribution to the conservation of the natural foundations of life. We support sustainable development that promotes economic prosperity and social progress, but not at the expense of the environment and the generations to come.

The St. Lucia lake project in KwaZulu/Natal is an excellent demonstration of the effectiveness of this approach. It is a model of how ecologically-compatible tourism can be turned into the economic driver for a region's development. Lufthansa is delighted to have been able to make a direct contribution to the success of this and similar ecotourism projects.

Welcome Statements

June 2000
4th Living Lakes Conference,
EXPO 2000, Germany

November 2000
5th Living Lakes Conference,
Lake Biwa, Japan

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6th Living Lakes Conference,
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7th Living Lakes Conference,
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But our commitment to projects like St. Lucia would hardly be credible if we didn't keep our own house in order, first and foremost.

For many years, Lufthansa has advocated environmentally friendly air transport, geared to the future. By this we mean air transport that co-operates with other modes of transport and consumes a minimum of natural resources, while reducing emissions as much as possible and still meeting its obligations to society. For example: by operating especially fuel-efficient, quiet and low-emission-profile aircraft, Lufthansa was able to achieve nearly half its growth in the last ten years without creating any additional environmental pollution.

Ladies and Gentlemen, fascinating natural landscapes, like those many of you have been able to experience first-hand in the past few days at St. Lucia, are important tourist attractions that South Africa - and the entire continent - can proudly promote. And yet, this capital will only pay a dividend if it is preserved. In a sense we will be living off the interest, which is not a bad way of paraphrasing the concept of sustainability. However, this can only be put into practice if all parties concerned - politicians, civil servants, NGOs and businesses - come to the bargaining table. This conference is such an opportunity and I wish you all the best in your discussions!

Deborah Horn

**Marketing Manager,
Lufthansa Südafrika**

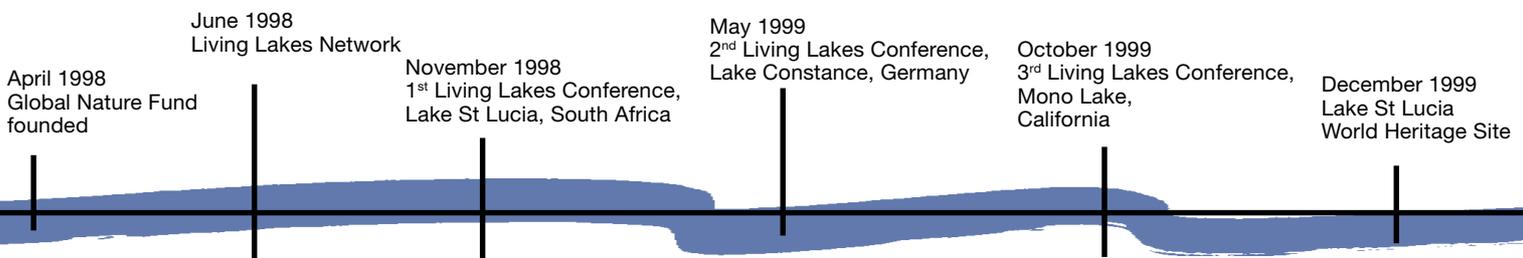
Warum sollte eine Fluggesellschaft ein Seenschutzprojekt unterstützen?

Seen und Feuchtgebiete sind wichtige Habitate für Zugvögel. Das schließt auch den Kranich ein, das Wappentier der Lufthansa. Lufthansa arbeitet daher seit vielen Jahren aktiv für den Schutz der Kraniche und ihrer Lebensräume.

Der Naturschutz braucht globale Netzwerke, um seine Ziele zu erreichen. Kooperation, Ideenaustausch und gegenseitige Unterstützung über nationale und kontinentale Grenzen hinaus sind nötig. Dies ist eines der Prinzipien von Living Lakes und für uns ein guter Grund, dieses Projekt zu unterstützen. Darüber hinaus schafft Living Lakes Lösungen, die der lokalen Bevölkerung neue langfristige Möglichkeiten zur Entwicklung bieten, ohne dabei das ökologische Gleichgewicht zu gefährden.

Das St. Lucia-See-Projekt in KwaZulu/Natal ist ein exzellentes Beispiel für die Effektivität dieses Ansatzes. Es ist ein Modell dafür, wie ökologisch kompatibler Tourismus für die ökonomische Entwicklung einer Region genutzt werden kann. Lufthansa ist sehr froh, zu diesem und ähnlichen Ökotourismus-Projekten einen Beitrag geleistet zu haben.

Seit Jahren setzt sich die Lufthansa für umweltfreundlichen Lufttransport ein und verwendet effiziente Techniken mit niedrigeren Emissionen. Um die Konzepte für Nachhaltigkeit erfolgreich umzusetzen, müssen Politiker, Behörden, Nichtregierungsorganisationen und Wirtschaft zusammenarbeiten.



Prof. Dr. Klaus Töpfer

Executive Director, UNEP

„Thank you very much for giving me the chance to be with you today. The pleasure is something like a nostalgic revival.

It is good to see so many old friends and colleagues, especially Mr. Engelhardt and Ian Player, whom I have to confess are my heroes. I have learned much from their experience and I continue to learn and this, of course, is the main precondition for change.

I am here not only to celebrate nostalgic experiences. Needless to say, that I am extremely convinced that this topic, the Living Lakes initiative, is of the highest importance. I can only congratulate those stimulating this initiative and making it as successful as it is. I really believe that what we are doing here, is what will be known at the World Summit in Johannesburg as a Type II initiative, an initiative that is driven by civil society, is backed by private business and is concentrated on targets, timetables, and which governments can decide on.

The Earth Summit in Rio de Janeiro in 1992 signalled very, very important change. In Rio we declared that ten years on we would have this Conference in South Africa. Who would have thought that South Africa would have a democratic government, with persons like Nelson Mandela and Archbishop Desmond Tutu being honoured with the Peace Prize. Yet this happened and we succeeded and will hold the World Summit on Sustainable Development in Johannesburg. If you had given this prognosis ten years ago you would have been called a visionary. We believe that if Mandela managed change in such times, we are obliged to do something comparable as well.

This is my conviction. It is always easier simply to say forget it, there will be a huge, huge meeting with perhaps at the end of the day some nice sentences or some nice papers but the imprint of change will be limited. And I believe it is better to be criticised later that you were not successful than not to try it at all. I can only encourage all of you to go with this spirit in the coming days. We will be, I am sure, criticised. It was the same after Rio. It is not only a question



Prof. Klaus Töpfer, UNEP Executive Director was a keynote speaker at the Living Lakes Conference.

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of what facts and figures are ready at the end of the World Summit on September 4th, it is also a question what is the change in thinking, in the minds of people, of policy makers and civil society after this Summit.

And therefore we need committed activities as we have them here now. Yes, I believe we have to link the Summit to a broader audience than we did in Rio de Janeiro. I am very very glad that the responsible Minister welcoming us here was the Minister of Arts, Culture, Science and Technology from South Africa, and he underlined this interrelationship. On the 3rd of September we will hold an exceptional side event with UNESCO entitled „Cultural Diversity, Biodiversity and Sustainable Development“. And I believe it is a much neglected topic but a very, very important one that focuses on interrelationships. We must be aware that where we are losing the cultural identity of people we are losing biodiversity as well, and vice versa. As we become more and more like technicians and less close to the every day reality of ordinary people we lose our understanding of day-to-

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day life. We must ask the question: how can we stimulate and protect biodiversity in this world?

In a globalising world it appears that uniformity is the price we have to pay for globalisation, a failure or a decrease in identity. This is not being nostalgic and it is not emotional. It is, I believe, a precondition for a stable process of globalisation. If you go around the world, you see more and more that people don't want to pay the price of uniformity for globalisation. They want to link globalisation with their identity. This is true of biodiversity, with cultural diversity, products, and all that we discuss here. People also live from their hearts not only from their heads, but it is a very close interrelation.

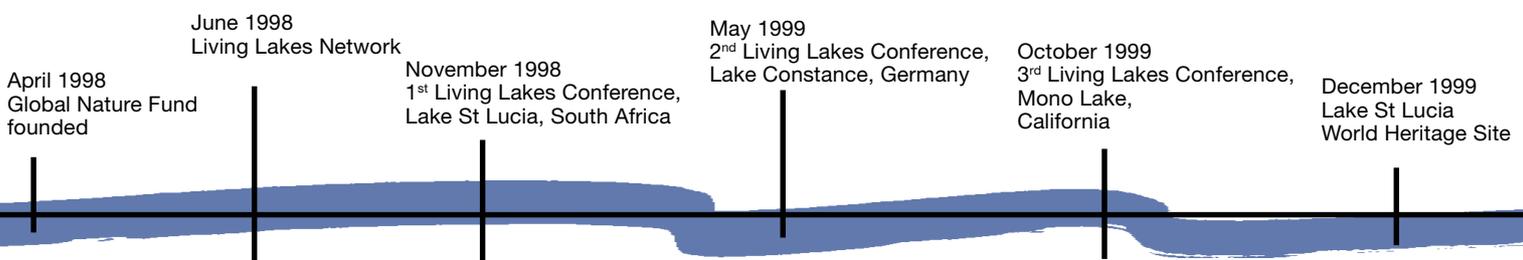
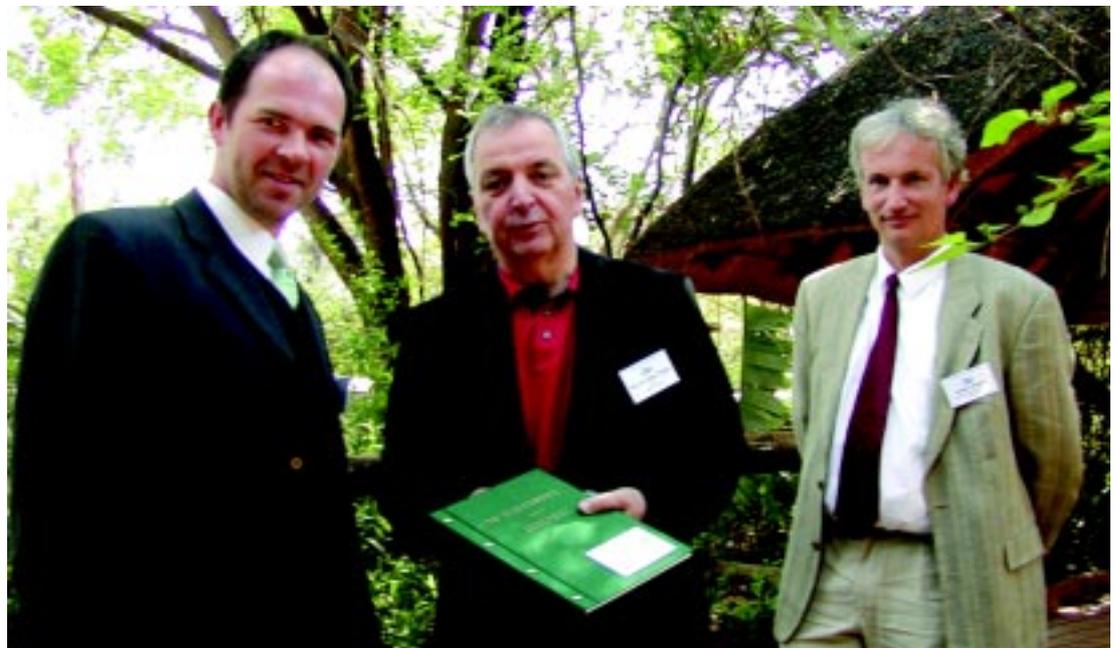
This leads us to, I believe, a wonderful motto for the Summit „People - Planet - Prosperity“, the three „Ps“. They are anchoring the pillars of sustainable development, of course. Yes, it starts with people, with human beings, and the Secretary General in his Millennium Declaration began with, „We, the peoples“. He didn't start „We, the governments“.

Therefore, the organisation I am responsible for, UNEP, decided to add to our name the motto „Environment for Development“. We want to

be extremely clear that there is an instrumental link between the needs of the people and protection of the environment. Lots of people, and I just want to integrate myself into this group, bring their values, their spiritual values, their culture to the topic of development.

I come back to the topic of culture. You see, in all religions around the world, water is more or less something like a sacred good. To spoil water is an offence against one's spiritual belief, against one's values. I believe that we have to decide and we have to find good ways on how we can at least price the servicing of water fairly. But I strongly recommend against going public to say we want to have a price for water. This is offensive to a lot of people. If you go to the Islamic World you will see that water is a sacred good. And you cannot price it. You can price the services of water. Water cannot be unlinked from cultural topics. Unfortunately, the poorest of the poor are paying the highest prices for water and not the other way around. If you go to Nairobi you will see that the slum dwellers pay an extremely high price for water. Indeed, slum dwellers, who collect water in containers from outside communal taps pay much more in real terms than their richer neighbours who are supplied with piped water to their houses.

Dr. Klaus Rick, T-Mobile, (left) handing the new Sustainability Guide for Mobile Communication over to Prof. Klaus Töpfer, Jürgen Resch, GNF, on the right.



Again, I sincerely hope that these people and the planet can be linked. But they must be linked with prosperity as well. Kofi Annan in a speech delivered to the London School of Economics mentioned that one of the targets of this Summit should be „Responsible Prosperity for All.“ I have to confess that I felt reminded of an incident in German history - and there are several Germans here: There has only been one time in which a party won an absolute majority. That was under Adenauer and the slogan then was „Wohlstand für alle“ - prosperity for all. It did not say poverty for nobody, but prosperity for all. What we have to add now is „responsible“ prosperity for all. But this has a double consequence. The first is directly linked with the fact that the millennium goal to decrease poverty by 2015 by 50 % is a very challenging goal knowing that more than 1 billion people are living on less than a dollar a day and that more than 2.4 billion are living on less than two dollars a day.

We must be aware of this reality and if we cannot create prosperity for all, we will have a lot of problems. This goes for the environment as well. And if we go back 30 years and read the speech of Indira Gandhi in Stockholm, you can directly see this interrelationship in so far as it concerns developing countries.

What chance do poor people have to fulfil the expectation of environment and sustainable development, if they do not have the chance of linking the one with the other? We must be very aware of this, and our goal is to undertake this economic development process, which is urgently needed in developing countries, and to link it with sustainability. It starts with energy... let me say that we can provide one billion people with renewable energy, this includes biomass burning, but not without problems. This is quite a target and does not include big dams. So it would be very good to say yes, prosperity for all but it is only sustainable if we can, for example, in Johannesburg, come to a concrete target, say 10 or 15 % within a specific timetable. Some people believe this to be revolutionary. Even if we achieve 15 % in the next ten years, 85 % of energy will remain unrenovable. We have to be aware that 85 % of energy production must also have answers. This has something to do with efficiency in the use of fossil fuels. Fuel

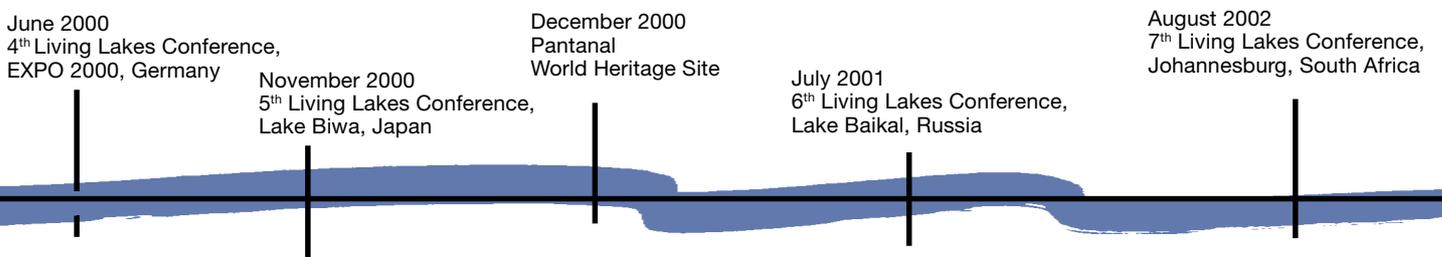
cells and other energy systems need to be developed if we want really to fight the emission of CO₂.

Less than one billion people use 54 % of the world's energy, and the remaining five billion use 46 % of the world's energy. This will and has to change. You cannot expect the development process to progress without a decision on energy usage. And in the country where I live, Kenya, about 9 % of the population is linked to electricity. In Uganda it is 4 %. If we go to Uganda and learn that there is a discussion on a big dam, for example, you cannot say to the people you cannot go ahead and do this because there will be repercussions to nature without offering an alternative energy source at a comparable price. It is the challenge of this Summit, not to make yet another declaration but to go in a definite direction, step by step.

The water target in the Millennium Declaration is to reduce by 50 % those people without access to safe water. What we urgently need in addition to this is a target on sanitation. Water and sanitation issues, as everybody knows, are closely interrelated and the main health risks really come from poor sanitation. We sincerely hope that we can also have a target and timetable for sanitation. I don't want to dwell on the shocking figures with regard to human health and the people who are dying daily and annually due to consumption of unhealthy water, worm diseases and poor sanitation. I sincerely hope that the concerns of the United States and also the EU will translate into really good water projects. If we are to come back to the overall topic of this Summit, we first and foremost need commitments from governments. That is what we have to negotiate in the next few days.

Secondly, what remains open is the interpretation and the use of the Rio Principles: I believe the Rio Principles are one of the most important outcomes of Rio. One of the principles is „Common but Differentiated Responsibilities“ as challenged by developed countries. One of the main expectations of the underdeveloped countries is that we stick to Common but Differentiated Responsibilities, and I have to confess, I am pretty much in line with these underdeveloped countries. On the one hand,

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we need to make a link to prosperity, responsible prosperity for all. Because of the prosperity we have in the developed world, rich countries sometimes do not feel responsible. We are externalising costs, we are misusing resources.

The second topic next to poverty and education must be to change consumption and production patterns. A difficult task which must always be linked to the question of the price we have to pay for our wealth.

On one side we have the Rio Principles of Common but Differentiated Responsibilities and on the other, in Johannesburg, the question of what it means in concrete terms for the different parts of this agenda? Common but differentiated responsibilities have been put into practise. But there is always a language problem. If you are mentioning the Precautionary Principle you have a lot of problems with our friends in the United States who defend the Precautionary Approach. We must be aware that this is a very, very far reaching topic.

We must be aware that precaution is one side of the coin, the other is risk. The more you are going in the precautionary direction, the more you are decreasing the risks. And we have a split situation with this word again. We must be aware that the poorest have the least chance of acting in a precautionary manner. They have all the risks. So a lot of people are convinced that precaution is a prerogative of the developed, richer world.

We should remember here the cynical discussions that took place (and this includes Germany) at the time of the so-called 'mad cow disease', when a lot of cattle was slaughtered. There was a recommendation then to send such cattle to North Korea because the population there was experiencing hunger. The point I want to make is that we must be aware of such cynicism and take into account the view points of the developing countries.

As for the means of implementation, especially with regard to the financial situation, I believe we had a very, very good start for Johannesburg two weeks ago when it was finally possible to come to a conclusion with the Global Environment Fund, the GEF replenishment. The United States too, accepted the replenishment of the GEF. With this three billion dollars we

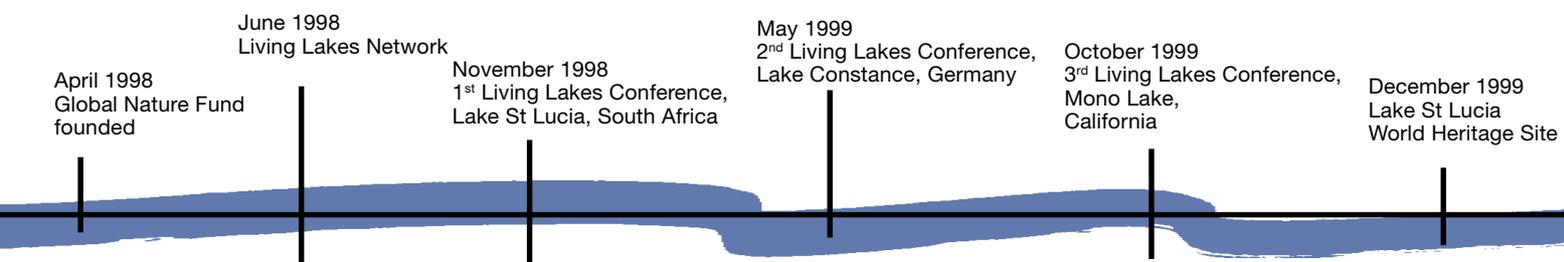
have the highest replenishment ever. We will work to link Monterey with Johannesburg.

Trade is the next topic. Here again there are big differences of opinion, particularly with regard to subsidies and especially in the area of agriculture where many questions remain.

The second part of the Summit will be the political declaration and the third will be Type II topics. If you have the commitment of the governments in this plan of implementation I have no problem with all this, why not use partnerships, why shouldn't we ask people like you to develop a good project with regard to lakes. Convince us that this is the way to go and convince governments to pay. Cooperate with private business and with a lot of committed people. Such as a well-known company from the oil sector who have initiated a project for one million solar roofs in the world. It is not a substitute to say „but we want to have 10 to 15 % of the renewable energy fixed by governments“. We have a target that can integrate all the private initiatives. I have only one criterion what I really want to underline. If a company comes and says I want one million solar roofs, I would be very happy but we should also decide that we report annually to an independent institution to say what happened in the previous year with the target. So that we have this monitoring, this benchmarking. Otherwise, after three or four years nobody will be aware that there was once such a decision.

This Summit must be a summit of accountability, and it is better to aim for a lower target than to go with a higher target knowing it cannot be reached. We must be accountable, and this is a big issue being even in private business. Private business as you know, (if you go to the stock market), is experiencing a daily loss of accountability and we cannot dare in this world not to be accountable, because a safe and peaceful development of this world depends on it. I always underline that what we are doing here has something to do with security, something to do with peace.

I would like to come back to lakes: if we look at Lake Chad, you'll see that Lake Chad is shrinking, because more and more people are living there and there is more and more intensive agriculture. We are losing the water of Lake



Chad. We risk the same fate in the Aral Sea. We need a new initiative for Lake Victoria, without any doubt, as the level of pollution is worrying. You see the importance of this if you think of the overall water supply down to Egypt. It is a security topic of the highest importance.

I come to the sustainable use of water:

We cannot say this is a lake, don't touch it, we have to link it with development, otherwise we have a problem. I recently had the chance in the course of an environmental assessment and analysis to visit the Palestine territory and Israel. I was informed by one of the kibbutzim there that they use underground irrigation to make better use of water. Technology is something to be developed, to make progress possible. How can we achieve better recycling of water to protect lakes? Each lake has its specific problems. If you take Lake Victoria for example, the main problem there is not what we have at Lake Constance, something like the collection of freshwater. How can we make it clear that these water bodies with their wonderful nature are an asset for the people living there? What can we contribute to such areas of nature that will help in providing jobs for people, and in ensuring better livelihoods. How can we link these needs? Eco-tourism is one of the answers, sometimes a very difficult answer, as you know, but a necessary one.

We could go on and on. At the end we must also be aware that there is a need for better financing in respect to the topics which are bracketed in Johannesburg. I have to apologise that I am really not focused on lakes only. But I want to link the one to the other because we are approaching this Summit. And this Summit is a summit on sustainability and not a summit on environment. Therefore, I always confess in all openness, my answer to whomever comes and says what we need first is a World Environment Organisation, is that first we need a World Organisation for Sustainable Development. This is what we need. The environment must be really a very concentrated and coordinated partner for development.

These are challenges. Some are optimistic, at the end of this conference, however, we will most probably also be disappointed, but the world goes on. The problems are clear, and if

we are resigning before such a conference starts we are not responsible, and therefore I ask that you make this Summit a summit of accountability and responsibility, and then we will have done our job.

Thank you very much."

Prof. Dr. Klaus Töpfer

Exekutivdirektor UNEP

Ich bin fest davon überzeugt, dass das Living Lakes Projekt von überaus großer Bedeutung ist. Den Initiatoren, die diese Initiative ins Leben gerufen haben und sie so erfolgreich gemacht haben wie sie heute ist, kann man nur gratulieren. Dieses Projekt ist ein typisches Beispiel für eine sogenannte Typ-II-Initiative des Weltgipfels. Type-II-Initiativen sind Partnerschaften für nachhaltige Entwicklung, die der konkreten Umsetzung einzelner Aspekte des Weltgipfel-Aktionsplans dienen sollen. Zu den Akteuren dieser Partnerschaften gehören die Privatwirtschaft, zivilgesellschaftliche Gruppen und Regierungen.

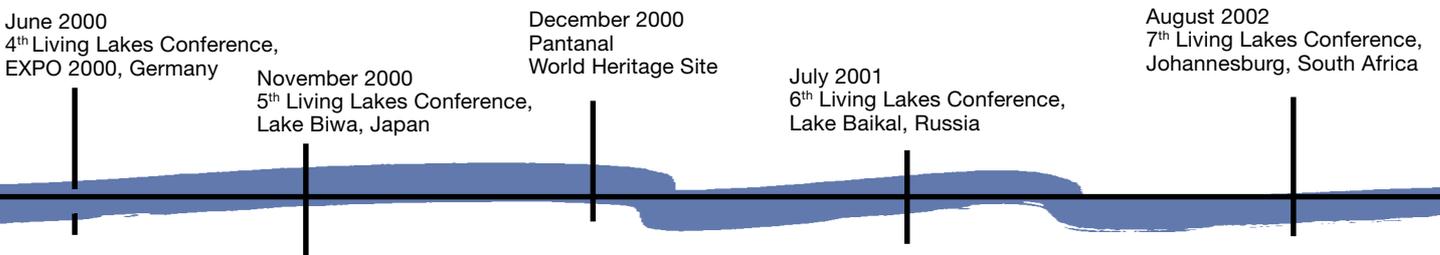
Der Erdgipfel in Rio de Janeiro 1992 hat einen sehr wichtigen Wandel signalisiert. In Rio haben wir erklärt, dass wir zehn Jahre später diese Konferenz abhalten werden. Wer hätte gedacht, dass Südafrika eine demokratische Regierung haben wird und dass Menschen wie Nelson Mandela und Bischof Desmond Tutu mit dem Friedensnobelpreis geehrt werden? Wenn Mandela in diesen Zeiten Veränderungen erreichen konnte, dann sind wir dazu verpflichtet, auch den Weltgipfel in Südafrika erfolgreich zu gestalten. Ich glaube, es ist besser im Nachhinein kritisiert zu werden, als es erst gar nicht erst versucht zu haben. Das Ergebnis des Weltgipfels ist nicht nur eine Frage von Fakten und Zahlen, sondern auch, wie sich die Meinung und das Denken der Menschen, der Entscheidungsträger und der Gesellschaft verändern. Daher brauchen wir solch engagierte Aktivitäten wie Living Lakes.

Wir müssen uns die Frage stellen: wie können wir die Biodiversität in dieser Welt fördern und erhalten? In dieser globalisierten Welt scheint es, dass die Uniformität und der Verlust an Identität der Preis ist, den wir für die Globalisierung zu zahlen haben.

Die drei Elemente des Weltgipfelmottos „Mensch - Erde - Wohlstand“ bilden die Säulen für Nachhaltige Entwicklung. Es gibt eine instrumentelle Verbindung zwischen den Bedürfnissen der Menschen und dem Schutz der Umwelt.

Wasser ist ein heiliges Gut. Wir müssen einen Weg finden, faire Preise für die Wasserversorgung festzulegen, denn leider zahlen die Ärmsten der Armen den höchsten Preis für Wasser. Kofi Annan sagte in einer Rede, dass

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„verantwortungsbewusster Wohlstand für alle“ ein Ziel des Weltgipfels sein müsse. Dies steht in Zusammenhang mit dem Ziel der Millenniumserklärung, die Armut weltweit bis 2015 um 50 % zu senken, denn mehr als 1 Milliarde Menschen leben mit weniger als einem Dollar pro Tag und mehr als 2,4 Milliarden Menschen mit weniger als zwei Dollar pro Tag.

Unser Ziel ist, den ökonomischen Entwicklungsprozess in den Entwicklungsländern nachhaltig zu gestalten. Dies fängt bei der Energie an. Wir könnten eine Milliarde Menschen mit erneuerbarer Energie versorgen.

Ein Ziel der Millenniumserklärung ist die Anzahl der Menschen zu halbieren, die keinen Zugang zu sauberem Wasser haben. Darüber hinaus müssen wir auch die Hygienebedingungen mit einbeziehen, die eng mit Gesundheitsrisiken in Beziehung stehen.

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Prof. Dr. Wolfgang Engelhardt

**Honorary President,
Deutscher Naturschutzring -
German League for Nature Conservation
and Environmental Protection**



Prof. Dr. Wolfgang Engelhardt, Honorary President of the German League for Nature Conservation and Environmental Protection.

**Agenda 21 and Sustainability
in Lake Areas**

Principle 4 of the Rio Declaration on Environment and Development says: „In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it.“

Agenda 21 is a world wide environment and development action programme for the 21st century comprising 700 pages.

Although all states declared their intention in Rio to implement the programme as soon as possible, Agenda 21 is a programme only and as such not legally binding for the countries. It is important to underline this fact to fully appreciate the tasks and efforts of the network Living Lakes.

The topic of Section II, chapter 18 of the Agenda 21 is „Protection and Management of the Water Resources“.

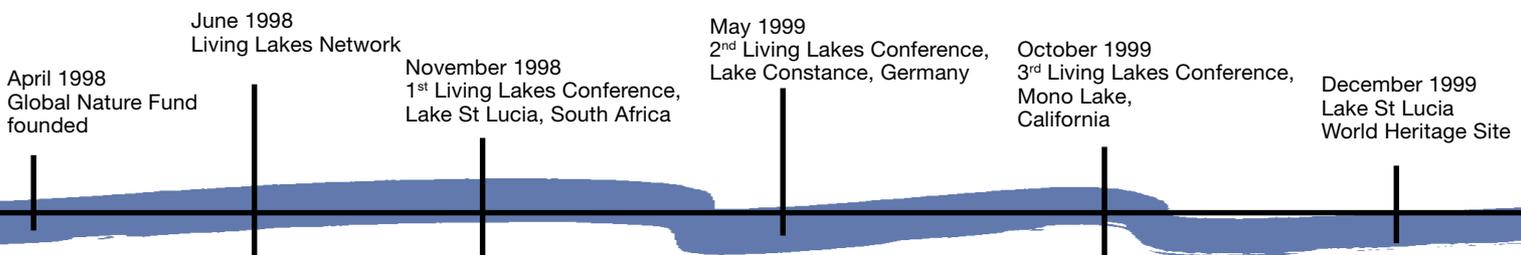
Almost 71 % of the earth surface are covered with water. The deciding factor however, is not

so much the surface covered with water, but the water volume, especially the quantity usable by man.

The salt water resources of the oceans are estimated at 1,300 million cubic km, the whole fresh water resources at 38 million cubic km in all. However, 29,400 million cubic km are stored in the ice of the Antarctic.

The total surface of all natural lakes is estimated at about 2,5 million sq. km. (representing 1,8 % of the land surface), that of fresh water lakes at 125,000 cubic km representing 0,009 % of the whole water resources world wide. These mere figures show the importance of water as a most valuable good, that our generation, evidently has borrowed from our children and grandchildren to hold in trust only.

Clean water is crucial for the survival of all living beings. As the economic activities increase world wide, the need of water rises accordingly. About 70 to 80 % of the fresh water resources are used for the irrigation of farmland, less than 20 % in the industry and only 6 % in private households. To an increasing extent water, respectively the shortage of clean water, limits the agricultural production, industrialisation and urban development.



Water is a limited resource; its supply and quality are affected by deforestation, mining, and non-sustainable agriculture, urban development and the misuse of rivers as waste water canals, by acid rain, fertilisers and pesticides, by sedimentation and climatic factors.

Despite existing research gaps still to be filled, there is an agreement concerning the opinion, that climatic changes will have effects on the water balance. Therefore, additionally to the measures which were decided on during the climate convention, monitoring for particularly threatened regions and countries, the evaluation of the potential economic, social and ecological consequences as well as the development of appropriate reactive strategies are necessary.

Such a reactive strategy is the Living Lakes project. It is an illusion to think that we are able to save the biodiversity all over the world. The large nature organisations of the USA, such as Conservation International, the Nature Conservancy, Sierra Club etc. appealed two years ago to concentrate all efforts of the protection of bio-diversity on the hot spots. In these defined areas, at least, 43,8 % of all known plants and 35,6 % of all species of mammals, birds, reptiles and amphibian are found.

Of course, lakes are included in these hot spot areas. In addition, lakes (and also natural rivers) have to be included into the protection efforts far more than in the past. They are part, also beyond the hot spots, of the most threatened eco systems, especially lakes in the tropic and sub-tropical regions. The number of threatened species per unit of area is as high as in no other living space.

What is the most important thing in view of the protection of lakes?

1. The surface of a lake should not be considerably diminished through man-made interventions. To diminish the living space means to reduce the number of species which have been adapted to the living conditions of these regions for a long time. According to the species-area-rule, the decrease in the size of the habitat reduces the number of species which are capable of surviving in the respective habitat (lake) for a long time by the sixth to third root of the area. That means: Reducing the size of the habitat (lake) by 90 %, means that half of the

species will survive. Destruction of the last 10 % of the habitat will immediately wipe out the remaining half.

These theoretical considerations are important, in practice, for shallow steppe lakes, especially in view of increasing global warming and increasing evaporation of water from the lake surface. An example which is just as dreadful is Lake Aral in Turkmenistan. Previously it covered an area of 64,100 sq. km, but today it is less than a third, as the water of its tributaries, the rivers Amur and Syr-Daria, have been diverted for irrigation purposes for miserable cotton cultures. The former rich fishing in Lake Aral completely disappeared, storms of salt-laden air from the drained lake basin threaten the lake shore far into the hinterland as well as the existence of the population living there.

2. The shore areas (littorals) of lakes deserve special protection. They are spawning sites and „nurseries“ for many aquatic species. The reed belts of the shore areas (littorals), in industrialised countries, have often been damaged seriously by leisure boats.

Lakes should neither be dammed up nor lowered as it often happens when hydroelectric power plants are working. Many inhabitants of lake regions are used to natural level fluctuations only.

3. Lakes should not be misused as sewage plants for untreated waste water of the communities located around lakes. The introduction of phosphates is extremely harmful as it leads to eutrophication if it enters over a long period.

In industrialised countries, particularly in Germany, the construction of ring sewage pipes has proved to be very effective. They collect the sewage from the lake shore communities and connect them to a powerful sewage treatment plant, draining into the run-off of the lake.

To prevent the introduction of fertilisers and biocides into the lake water, lakes should be surrounded by a 10 m large shore strip where agriculture should not be permitted.

4. There should not be more water withdrawn from lakes which are also used as drinking water reservoirs than the quantity of water which flows into the lake in the course of a year.

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5. In developed countries lakes play an important role as recreation areas for the people. To preserve the biodiversity, the establishment and monitoring of protected zones are necessary.

6. If animal species, mainly fish, from foreign waters are released into lakes, this almost always leads to serious damages of the original ecosystem as the consequence. A well-known example is Lake Victoria in Africa. Originally about 200 cichlides were endemic. The fast growing *Lates niloticus* has wiped out about half of the cichlides in about twenty years only.

Provided that the above mentioned principles are realised in a lasting way, we can talk of sustainable development in lake regions.

The special general UN meeting Rio + 10 will be held under the motto „Sustainable Development“ from 25 August to 4 September 2002 in Johannesburg. Logically we know that there is no other alternative to survive for mankind than sustainable development. We cannot brush it aside as illusion but have to make it our maxim for our political actions.

Probably the delegates of most of the countries will present imaginary concepts because viable sustainable development approaches (I wish to emphasise approaches) only exist in very few countries. Globally, there is no real sustainable development so far despite all promises made in Rio 1992.

Living Lakes cannot implement sustainable development in all lake regions over the world. But we can set good examples. We have set them already repeatedly: examples for real sustainable development. Lets us pursue our path in this direction.

The Greater St. Lucia Wetland Park is home to the largest, southernmost population of hippos .

Prof. Dr. Wolfgang Engelhardt

**Ehrenpräsident,
Deutscher Naturschutzring**

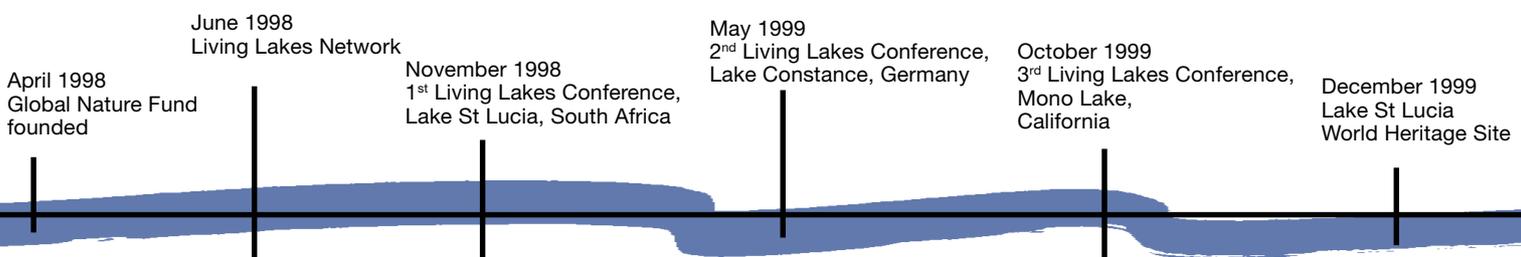
Alle Staaten bekundeten in Rio 92, die Agenda 21 in ihrem Land so schnell wie möglich umzusetzen; jedoch ist dieses Aktionsprogramm für die Länder nicht bindend. Es ist wichtig dies zu unterstreichen, um die Arbeit des Living Lakes-Netzwerkes schätzen zu können.

Fast 71 % der Erdoberfläche sind mit Wasser bedeckt. Wichtiger ist jedoch das Wasservolumen, das von Menschen genutzt werden kann. Süßwasserseen machen nur 0,009 % der gesamten Wasserressourcen weltweit aus. Diese Zahlen zeigen die Bedeutung von Wasser als unser teuerstes Gut.

Wasser ist eine limitierte Ressource, deren Verfügbarkeit und Qualität beeinflusst werden von Abholzung, Bergbau, nicht-nachhaltiger Landwirtschaft, Stadtentwicklung, dem Missbrauch von Flüssen als Abwasserkanäle, durch sauren Regen, Düngemittel und Pestizide, Sedimentation und klimatischen Faktoren.

Es ist eine Illusion zu denken, dass wir die Artenvielfalt auf der ganzen Welt erhalten können. Daher haben große Naturschutzorganisationen begonnen, sich auf den Schutz der Biodiversität in den artenreichsten Gegenden zu konzentrieren.

Was ist das Wichtigste beim Schutz von Seen? Die Oberfläche von Seen sollte durch menschliche Eingriffe nicht verkleinert werden. Dies zieht eine Verringerung der Anzahl der Arten nach sich, die an diese Lebensräume angepasst sind. Dabei spielen die zunehmende Verdunstung verursacht durch die globale Erwärmung und der steigende Wasserverbrauch für Bewässerung eine große Rolle. Auch die Einführung fremder Arten bedroht Seen weltweit. Gerade die Uferbereiche von Seen verdienen einen besonderen Schutz als Brutgebiete für viele wasserlebende Arten. Auch als Erholungsgebiete sind Seenregionen sehr wichtig. Living Lakes kann nicht alle Seenregionen der Erde schützen, doch wir können als Vorbild dienen.





Dr. Ian Player, founder of the South African Wilderness Foundation.

Dr. Ian Player

**Founder and Patron,
Wilderness Foundation, South Africa**

Thanks for the opportunity of talking today. I would like to congratulate the organisers and I am delighted to see Ulf Doerner. The concept and practice of Living Lakes is a brilliant and pertinent icon in our current biologically troubled planet. It is a positive sign emanating from depths of the collective unconscious of mankind and gives those of us who work in the field of conservation and wilderness, hope that a positive change is occurring in our world.

One hundred and fifty years ago, where we now stand, there was a very different landscape surrounding us. To imagine a picture of what it looked like we have to go to the books of the early hunters - Cornwallis Harris and Adulphe Delegorgue - who described the vast herds of game, probably the greatest concentration of wild animals on our planet. They said that as far as the eye could see, from horizon to horizon were springbuck, black wildebeest, steenbuck, duiker, blesbuck, hartebeest, zebra, elephant. All the predators were here. Prides of lion, cheetah with their high whistling calls, leopards grunting in the night, hyenas hunting in packs, jackals and serval cats. Ostriches stalking across the tawny redgrass, vultures wheeling in the thermals, black eagles and buzzards in the sky. Baboons and monkeys and a host of small

mammals from aardvarks to mongoose. It was a continual diurnal and nocturnal rhythm of the land.

In the summer when the fierce thunder and lightning storms swept across the veld, small lakes dotted the plains. In the reeds were all the weaver birds, coots, herons, purple-crested gallinules. Here were lakes that lived and the pioneers were struck by the wild beauty of it all.

Not far from here over the Magaliesberg Mountains, Cornwallis Harris records seeing over twenty white rhino on a morning's march, hippo in the rivers and kudu and eland galore.

Today a concrete tide has almost obliterated all traces as Johannesburg and Pretoria became one city. Incredible too, that where the Johannesburg Stock Exchange once stood, Cornwallis Harris shot a sable antelope in the 1830s. It was originally called a Harris buck.

We are losing a spiritual connection with the earth. As C.G. Jung said: „We have lost a world that once pulsed with our blood and breathed with our breath. Did the wind used to cry and the hills shout forth praise?“ The land used to speak a different language.

Richard Nelson, an American anthropologist, said: „Abandonment of an ethically and spiritually based relationship to nature by our western ancestors was one of the greatest and most perilous transformations of the human mind“.

And Thor Heyerdahl, the famous Norwegian explorer of Kontiki Expedition, put in brutally frank terms what we are doing. He said and I quote: „Man has waged a deliberate war against his environment. We are beginning to see the serious flaws in our civilisation and feel ever more uncertain as to whether or not we are on a safe course. Are we to trust the modern prophets, the technologists and politicians when they promise us that we are heading into a paradise in the future?“

This is confirmed by Dr. E.A. Wilson, who said in a Time magazine in 1995, and I quote: „The ongoing loss in biodiversity is the greatest since the end of the Mesozoic era, 65 million years ago“.

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As my friend Laurens van der Post - recently unfairly savaged in a biography - remarked to me that the European shore of the Mediterranean, in spite of the vision of wealth and luxury it still holds for weary industrial man, is a ghost of what it was in Athenian days. He said that there was not a valley or a mountain or stream where man did not walk and commune with gods, and dream in the company of satyrs, centaurs, nymphs-pawns in the Titanic forces of a world charged with magic and wonder. I remember going as a young soldier in 1945 to Rapallo and Santa Margherita on the Italian Riviera. It was the time before the tourists came back and one morning at the moment before sunrise I had a mystical revelation of what it must have been like in the time of Homer and Virgil.

To lapse into doom and gloom is only too easy, but Living Lakes is a bright new star in a darkening sky. In recent years the enormous victory in the battle for St Lucia put new life and energy into the conservation and wilderness struggle. This great estuarine system, pulsing with life, of flights of flamingo, pelican, of hippo and crocodile, and the screaming cry of that great bird of the rivers and lakes of Africa - the fish eagle; this lake was under the most dire threat of mining. So great were the forces aligned against it that the chance of saving it was given as 2 %. Both the Nationalist government and the mining companies were determined to mine it.

The rational and economic arguments in favour of mining St. Lucia were overwhelming as a short term solution. Arguments for and against mining raged on for four years. It was too incredibly complex and convoluted for the ordinary members of the public to understand and logically process the facts. The complications boggled the mind. How, for example, could a mining company replace the delicate composition of the dunes that allowed fresh water to seep into the Lake in drought years? As one of the spokesmen against the mining I made it clear that I was not against mining per se. My family had been involved in the mining world since 1870 in South Africa and I myself worked 6,000 ft underground in our gold mines.

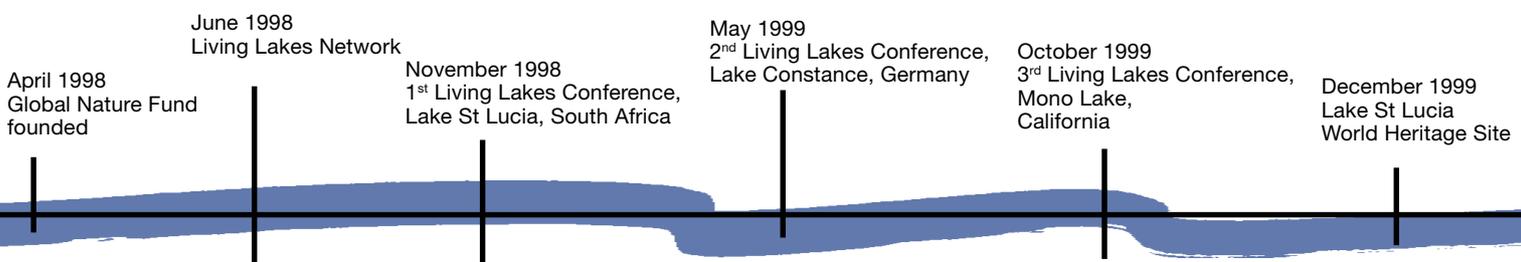
We were up against what David Tacey refers to as „the rational mind’s allergy to the spirit“. But in the end the conservationists won the day. What eventually emerged was a deep unconscious realisation that something uniquely precious was at stake. We in the wilderness movement called it „the spirit of the land“. This touched a chord that few people could articulate, yet they just knew that it was right to leave St Lucia Lake alone, that there had to be some places in our world free of industrialisation.

The title The Campaign for St Lucia gripped the public imagination, and the slogan became „The war for conservation will be won or lost on the battlefield of St Lucia.“ There was more newspaper, magazine, radio and television space devoted to St Lucia than in any other environmental issue in the history of our country. When a commission under the chairmanship of Judge Leon was appointed, we in the Campaign knew justice would prevail. We had a petition and collected 300,000 signatures or more. The Minister of the Environment referred to it as „signed by children and communists“, a foolish remark which he was not allowed to forget. I remember Ulf Doerner standing with a petition outside night clubs in Munich. People who had never heard of St Lucia signed. Ulf Doerner’s passion and some instinctive knowledge that he was right made them sign.

There were magnificent people from all over the world who played leading roles in this most bitter of struggles. Ulf Doerner of Germany was to the Campaign for St Lucia what Blucher was to Wellington at Waterloo. His intervention and the forces he brought with him from Europe turned the tide, but as Wellington said at Waterloo, „It was a close run thing.“

The forces for St Lucia united across many continents with Vance Martin in America and Laurens van der Post of the Wilderness Trust in the United Kingdom playing prominent roles. I well remember a pro-mining person saying, „Who the hell does Ulf Doerner think he is.“ My reply was, „You are about to find out,“ - and he did.

Our South African colleagues refused to admit defeat, even in the darkest moments of the campaign. At one stage I asked my brother Gary Player the golfer to become one of the patrons



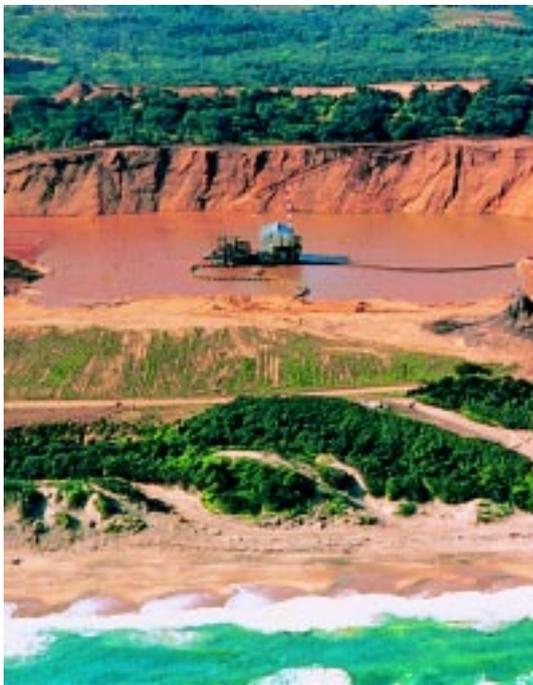
of the campaign. He asked me what the chances were of winning. When I replied 2 % he just laughed and said that was not even a percentage. I reminded him how he had been written off in the British matchplay tournament against Tony Lema, yet came back to win. I reminded him too when he was a little boy I seconded him in the boxing ring and he was getting a hammering and I wanted to throw in the towel. He said to me, „You know the story of David and Goliath?“ „Yes,“ I said. „Do you know what David said when he saw Goliath? He said ‘He is so big I can’t miss’.“

I believe too that the 40,000 people we in the Wilderness Leadership School and the Wilderness Foundation took into the wilderness of St Lucia and Imfolozi on foot and in canoes since 1957, stimulated an ecological conscience.

The magnitude of our victory was only appreciated many years later when Lake St Lucia was proclaimed the first World Heritage Site in South Africa.

There is a saying purportedly from the Zen Buddhists. It goes like this: „What we need in the world today is to hear within us the sounds of the earth crying“. I find this very moving because I accept Lovelock’s hypothesis of Gaia

Plans for titanium mining threaten the lake St. Lucia.



as a living organism. The Living Lakes is, I believe, a manifestation of this cry. Its achievements and the people who drive it are in the vanguard of a new understanding of our relationship with the earth on which we live.

Finally I would like to complement and thank Unilever for both the moral and financial support it has given to Living Lakes and to the Wilderness Foundation. Unilever is an example that we all hope other industries will follow because there can be no doubt that the future of the conservation of the earth lies in the hands of an enlightened business community, and Unilever is a prime example with the Living Lakes, which is a symbol of the striving for ecological integrity.

Dr. Ian Player

Wilderness Foundation, Südafrika

Das Living Lakes Konzept ist ein positives Zeichen für alle, die im Naturschutz arbeiten und gibt uns Hoffnung, dass in unserer Welt eine Wende zum Guten stattfindet.

Vor einhundertundfünfzig Jahren umgab uns hier eine völlig andere Landschaft. Um sich davon ein Bild zu machen, müssen wir zu den Aufzeichnungen der frühen Jäger zurückgehen, die die riesigen Herden von Wildtieren - vielleicht die größten dieser Welt - beschreiben. Kaum zu glauben, dass hier, wo die Johannesburger Wertpapierbörse stand, Cornwallis Harris 1830 eine Antilope geschossen hat. Wir verlieren unsere spirituelle Verbindung zur Erde.

Living Lakes ist ein leuchtender neuer Stern am Himmel. In den letzten Jahren hat der Sieg in der Schlacht um St. Lucia dem Kampf für Naturschutz und Wildnis neues Leben und Energie gegeben. Die Chancen, den See zu retten, lagen bei nur 2 %. Die rationellen und ökonomischen Argumente für den Bergbau am St. Lucia See waren als kurzfristige Lösung überwältigend. Am Ende siegten die Naturschützer. Überall auf der Welt gab es großartige Menschen, die uns in diesem schweren Kampf unterstützten. Die Kämpfer für St. Lucia vereinigten sich über viele Kontinente hinweg. Letztendlich wurde verstanden, dass es Plätze auf dieser Erde geben muss, die frei sind von Industrialisierung.

Das Ausmaß unseres Erfolges lernten wir erst viele Jahre später schätzen, als der St. Lucia See zum ersten Welt-naturerbegebiet in Südafrika erklärt wurde. Ein Sprichwort der Zen Buddhisten sagt: „Was wir in der heutigen Welt brauchen, das ist, den Ruf der Erde in uns zu hören.“ Ich glaube, dass Living Lakes die Manifestation dieses Rufes ist.

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Agenda 21

Social Groups as Driving Forces

Best Practise Example: St. Lucia, South Africa

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South Africa

Dr. Andrew Venter

Executive Director, Wildlands Trust, South Africa

Lake St Lucia Living Lakes Program

The Lake St Lucia Living Lakes program aims to promote the conservation of Lake St Lucia by helping:

1. Address core conservation needs.
2. Facilitate the sustainable development of the communities living around the lake
3. Nurture their support for the conservation of the Lake and surrounds.

Lake St Lucia and the Greater St Lucia Wetland Park

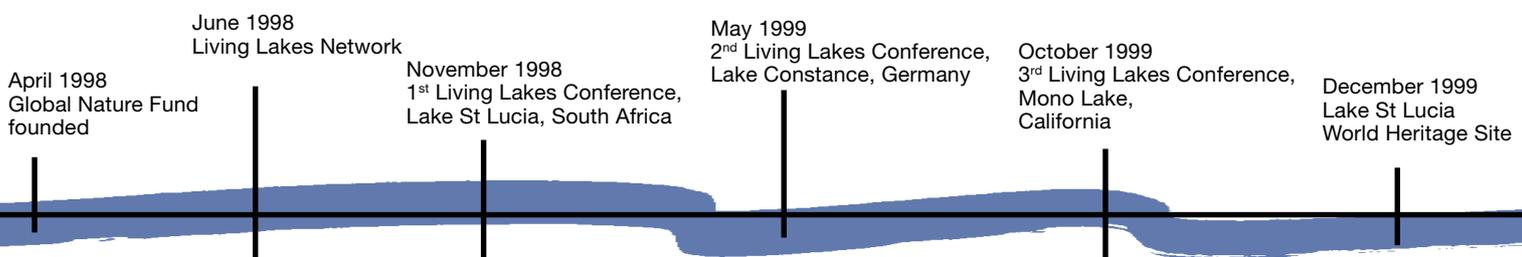
Situated within the St Lucia estuarine system, the largest estuarine system in Africa, Lake St Lucia is 60 km long, 20 km wide (at its widest point) and covers an area of between 170 and 200 km². The Lake is situated within the Greater St Lucia Wetland Park, Africa's oldest nature

reserve. The lake and surrounding park support more species of animal than the better known Kruger National Park and Okavango Delta, although these areas are much bigger. The area is regarded as critical for the survival of a large number of species, including South Africa's largest populations of hippopotamus, Nile crocodile and white-backed and pink backed pelican. Over 530 species of birds use the Lake, wetlands and surrounding areas at various times of the year, including over 20000 greater flamingos, 40000 lesser flamingos and thousands of ducks. Furthermore, the estuarine system plays a crucial role in maintaining the viability and health of the coastal marine system.

Recognising the uniqueness of the Lake and surrounding area, the South African government have committed themselves to the conservation of the system. Under the auspices of the Lubombo Spatial Development Initiative (LSDI), the Lake and surrounding areas have been consolidated into a single park, the Greater St Lucia Wetland Park, and a management authority is being established to co-ordinate the long term conservation and development of the park. Through the LSDI, significant funds have been allocated towards the development of the park and a private sector investment initiative launched. The government has also lodged the lake as a „Wetland of International Importance“ under the UN Ramsar Treaty, and has successfully applied for World Heritage Status for the Lake and surrounding areas (1st natural world heritage area in South Africa).

However, the integrity and long term survival of the Lake and surrounding area is far from secure. The Lake is surrounded by a mix of commercial agriculture, forestry and impoverished rural communities. The agricultural and forestry activities have a heavy impact on the Lake's watershed, both directly through water extraction and indirectly through land degradation associated with poor farming practise. Similarly the rural communities have an enormous impact, through poor land use, activities such as illegal harvesting, run-away fires, littering and a simple desire for additional land, leading to land claims and political pressure on the park.

Thus, in recognition of both the conservation heritage value of the Lake and the tremendous





Dr. Andrew Venter, Wildlands Trust, Amon Sithole, Simunye Tourism Association and Andrew Kinmont, Unilever SA presented best practices from St. Lucia. Moderation Ulf Doerner.

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pressures it faces, Lake St Lucia was inducted as one of the founder lakes in the Living Lakes network.

Living Lakes initiative

In South Africa, the local NGO partners are the Wilderness Foundation and the Wildlands Trust. Over the last three years, The Foundation and Trust have begun laying a foundation for a long term conservation program, aimed at developing and supporting the capacity of the local conservation agency and neighbouring communities to effectively conserve Lake St Lucia and the Greater St Lucia Wetland Park.

The activities initiated to-date include:

- (1) A series of workshops and field-trips aimed at improving the community's teachers understanding of the local environment, especially Lake St Lucia and the World Heritage site, and their ability to present environmental education to their students.
- (2) The development of a computer laboratory at the high school and the re-habilitation of the existing computers, donated by the University of Natal, for the primary school.
- (3) Volunteer run workshops and activity days, aimed at improving the high school pupils

life skills and appreciation for the environment.

- (4) The provision of magazines, books and other items as resource material for the schools. This material is being donated by the Unilever staff whose commitment and enthusiasm has been amazing.
- (5) The interactive development of environmental awareness resource material, focussing on Lake St Lucia and the World Heritage area. The resource materials were developed through a workshop process involving a range of teachers from the schools which service the communities neighbouring on the Lake and World Heritage area, and the local KZN Wildlife Conservation Partnerships staff.
- (6) The facilitation of a number of conservation-based community development projects around the Lake. These are being facilitated through the Simunye Community Tourism Association - a local community-based organisation - and are aimed at supporting the conservation of the Lake by addressing the core socio-economic development needs in these communities.

Dr. Andrew Venter

Geschäftsführer, Wildlands Trust, Südafrika

Das Living Lakes-Programm am St. Lucia See hat zum Ziel, den See zu schützen durch:

1. Schutzmaßnahmen
2. Nachhaltigen Entwicklung in den Gemeinden am See
3. Förderung eines Eigenbeitrags der Gemeinden zum Schutz des Sees und seiner Umgebung.

Der St. Lucia See ist 60 km lang, an der breitesten Stelle 20 km breit und hat eine Oberfläche zwischen 170 und 200 km². Der See liegt inmitten des Greater St. Lucia Wetland Park, Afrikas ältestem Naturschutzgebiet. Im See und dem umgebenden Park leben mehr Tierarten als im viel bekannteren Krüger Nationalpark und dem Okavango Delta.

Die südafrikanische Regierung hat die Einzigartigkeit des Sees erkannt und sich zu dessen Schutz verpflichtet. Unter der Leitung der Lubombo Raumentwicklungsinitiative (LSDI) werden langfristige Schutz- und Entwicklungspläne erstellt. Die Regierung hat den See als „Feuchtgebiet von internationaler Bedeutung“ unter das Ramsar-Abkommen gestellt. Dennoch ist das Überleben des Sees auf lange Sicht nicht gesichert. Der See ist unter Druck durch kommerzielle Agrarwirtschaft, Forstwirtschaft und verarmte ländliche Gemeinden.

Die Living Lakes-Partner Wilderness Foundation und Wildlands Trust arbeiten seit drei Jahren an einem langfristigen Schutzkonzept für den St. Lucia See und den Greater St. Lucia Wetland Park. Ein Schwerpunkt der Projektarbeit liegt auf der Verbesserung sozialer Einrichtungen und der Einführung von Umweltbildungsprogrammen für Schüler. An Schulen wurden Computerräume eingerichtet; es wurden Unterrichtsmaterialien zur Verfügung gestellt und die Lehrer in den Bereichen EDV und Naturschutz geschult. Mehrere Dörfer wurden mit einheimischen Bäumen wieder begrünt und Naturlehrpfade angelegt, die dann von ansässigen Einwohnern betreut werden.

Performance at Silethukukhanya School. The School is supported by Living Lakes.



Andrew Kinmont

Corporate Affairs Manager, Unilever South Africa

Unilever and the Living Lakes Project

Lake St Lucia is situated in the St Lucia estuarine system. The lake and the surrounding areas within the Greater St Lucia Wetland Park are South Africa's first Natural World Heritage Site. Many factors like agriculture and forestry have negative impacts on the conditions of the Lake. Thus, in recognition of both the conservation heritage value of the Lake and the tremendous pressures it faces, Lake St Lucia was inducted as one of the founder lakes in the Living Lakes network.

Living Lakes initiative

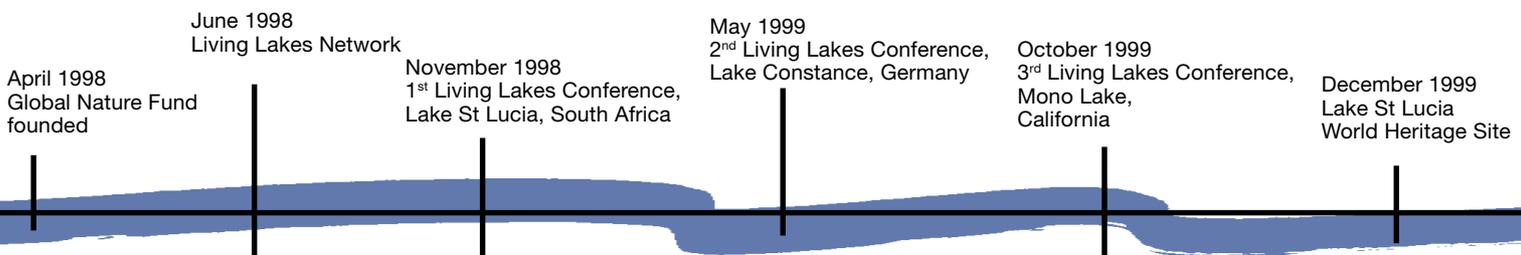
The Living Lakes initiative is an international partnership which promotes voluntary international collaboration among organisations that carry out projects benefiting lakes, wildlife and people. The global initiative is co-ordinated by the Global Nature Fund, a European-based non-government organisation, and managed by local organisations in each of the partner countries. The founder lakes were:

- Lake Constance (Bodensee) bordered by Austria, Germany and Switzerland.
- Spain's La Nava Lake
- United States Mono Lake
- Greece's Nestos Lakes
- Japan's Lake Biwa
- South Africa's Lake St Lucia

In South Africa, the local NGO partners are the Wilderness Foundation and the Wildlands Trust. The Wilderness Foundation has focused on lobbying political and local leadership support for the Lake, whilst the Wildlands Trust has focused on promoting increased awareness of, and support for, the Lake amongst the local rural communities. The key corporate partner is Unilever.

Globally, Unilever's daily business operations are reliant on, and impact upon, the broader environments of agriculture, fisheries and water. As a result, Unilever realizes it has a responsibility to look after these resources, and therefore

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is actively developing and maintaining sustainability projects around the world. In South Africa, the key area of focus is water. With South Africa having been declared an area of water stress, and with the availability of clean water being a primary concern, the inclusion of the Greater St Lucia wetlands in the Living Lakes project offered an ideal opportunity to extend Unilevers partnership in South Africa."

Living Lakes initiative (1998 to present)

Over the last four years, Unilever has directly committed funding in excess of 1 million Rand towards Environmental Awareness projects in this region, targeted at local teachers and decision-makers. This has included direct funding, as well as the allocation of Unilever staff time and resources, and provision of computer/education equipment. All activity has been carried out in support of UFED's key principles of sharing skills, knowledge and expertise (in addition to funding) amongst key partners, in support of sustainable water initiatives. This programme has focused on the Khula Agri-Village community, where a range of activities have been undertaken, including:

- A series of workshops and field-trips aimed at improving the community's teachers understanding of the local environment, especially Lake St Lucia and the World Heritage site, and their ability to present environmental education to their students.
- The development of a computer laboratory at the high school and the re-habilitation of the existing computers for the primary school.
- The provision of on-going maintenance services to ensure sustainable usage of this equipment
- Volunteer run workshops and activity days, aimed at improving the high school pupils life skills and appreciation for the environment.
- The provision of magazines, books and other items as resource material for the schools. This material is being donated by the Unilever staff whose commitment and enthusiasm has been substantial.
- The development of a „walk-through“ aquatic exhibit at the nearby Cape Vidal field

centre & Crocodile Park, which provides students and visitors with information on the aquatic value of the Lake.

- The interactive development of environmental awareness resource material, focusing on Lake St Lucia and the World Heritage area. The resource materials were developed through a workshop process involving a range of teachers from the schools which service the communities neighbouring on the Lake and World Heritage area, and the local KZN Wildlife Conservation Partnerships staff.

The new phase of the project and builds on the foundations laid through the afore-mentioned previous phases.

UFED's „Sacred Forest“ project

The Sacred FOREST and Green Village project is proposed within the context of the Lake St Lucia Living Lakes program. This program aims to promote the conservation of Lake St Lucia, by helping:

- Address core conservation need.
 - Facilitate the sustainable development of the communities living around the lake
 - Nurture their support for the conservation of the Lake and surround.
- The project has three components, namely:
- The establishment of a Sacred Forest within the Silethukukhanya School grounds
 - The „greening“ of Khula village, through the implementation of an indigenous tree propagation and planting program, development and implementation of a waste recycling program and a sustainable water management program.
 - The on-going development of an environmental awareness, both within Khula village and the communities bordering on the Lake system.

Establishment of a Sacred Forest

Extending into the school grounds is a patch of the Dukuduku Forest. Whilst this patch is heavily encroached with alien plants, it is characterized by fairly good top canopy cover as well as fair sub-canopy recruitment in the areas not totally overgrown with aliens. Thus, working with the Unilever volunteers, the school have initiated

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a rehabilitation program, structured around the following activities:

- The clearing of alien plants from the forest patch. This will be undertaken over a series of volunteer days, involving the Unilever volunteers, 80-100 pupils from the school, and volunteer staff from KZN Wildlife, the Department of Water Affairs and Forestry and the Wildlands Trust staff.
- The identification of the indigenous species represented in the forest and the missing species, which should be propagated and replanted. All the trees will eventually be marked using signage developed by the school pupils and funded by the various Unilever brands.
- The development of a nursery at the school, which will be used for both the forest and greening projects and as a resource for the school teachers and pupils. The missing species will ideally be propagated in this nursery, using seeds and/or seedling material sourced from the rest of the forest.
- The development of an eco-fitness trail through the forest. The trail will be designed with help from the school parents employed at local 121 Battalion, and will be built by the Unilever volunteers and school pupils, teachers and parents.

It is anticipated that the bulk of these activities will be completed during year 1, subject to the successful removal of alien plants from the forest patch.

Greening of Khula village

Building on, and supporting, the Sacred Forest project, this component of the project is aimed at developing and nurturing a green ethic in Khula village. A full-time project facilitator will be appointed to drive this process. This person will be sourced from Khula and will be supported by a progressive and practical - hands-on - training program developed in conjunction with the Durban Botanical Gardens.

Unilever currently supports the Durban Botanic gardens through sponsorship of a plant-mapping project, and is building on this relationship through encouraging the Botanic Gardens to develop an outreach programme at the Khula village.

Initially, emphasis will be placed on developing a functional nursery at the school and undertaking an indigenous landscaping of the school premises (year 1). During the second year the emphasis will shift to progressively greening the village. The project targets are the successful propagation of 5 indigenous (Dukuduku) trees in each of the 1000 homesteads and 20 indigenous trees in each of the community facilities (2 schools, 1 clinic, 1 creche, 2 halls). The development of the nursery, and the landscaping and propagation processes will be done under the technical guidance of the Durban Botanical Gardens.

St Lucia Lake Environmental Awareness project

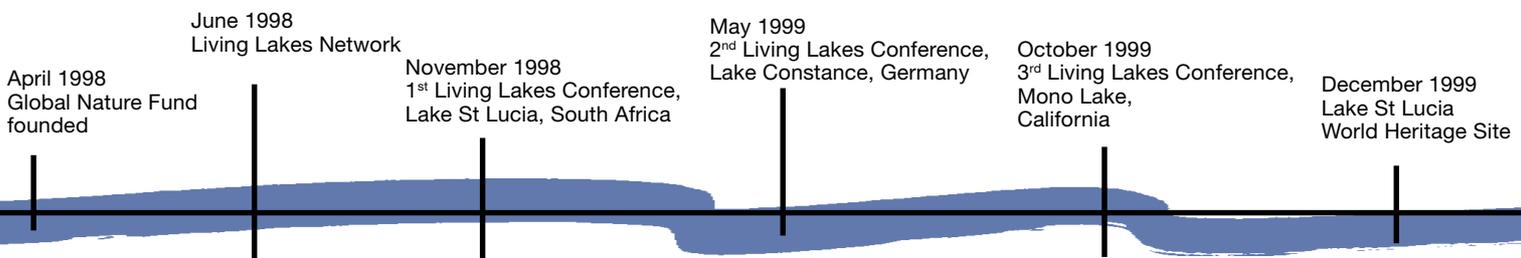
The awareness component of the project has two elements to it, namely:

- A teacher training and awareness program. This element will build on the foundation laid through the development and distribution of St Lucia Lake environmental awareness packs. It is proposed that a further 5 workshops be run in year 2 and year 3. This will allow for a further 50 local teachers to be exposed to, and provided with, the awareness pack.
- A wilderness leadership training and awareness program. This element will use the established and extremely successful wilderness leadership training program to reinforce the schools based environmental awareness initiatives. It is proposed that the trails will be run each year for the top Grade 12 students at the Silethukhukhanya High School. If possible, these trails will be run within the Greater St Lucia Wetland Park.

Rare & endangered Wildlife Initiative

A St Lucia Lake, Estuary and Wetlands Endangered and Rare Species project is established. The outputs of the program will be as follows:

- A series of species inventories, identifying the abundance and distribution of endangered and rare species and flora. A key element of this program would be the regular participation of volunteer groups. Compiling this database would constitute the first phase of the program. (2002/3)



- The second phase of the program will aim to draw up management plans for each of these species (2003).
- Due to interactive participation of volunteers in the program, the program will throughout focus extensively on raising environmental awareness. The environmental awareness campaign will include the development of school info kits; media coverage and hosting of students and other groups in the field (2002/3).

Andrew Kinmont

Corporate Affairs Manager, Unilever Südafrika

Der St. Lucia See und die umgebenden Gebiete im Greater St. Lucia Wetland Park sind Südafrikas erstes Weltnaturerbegebiet. Aufgrund des hohen Wertes dieses Naturerbes und des großen Drucks, der auf ihm lastet, war der St. Lucia See einer der Gründungsseen des Living Lakes Netzwerkes. Die Nichtregierungsorganisationen Wilderness Foundation und der Wildlands Trust betreiben politische Lobbyarbeit und Umweltbildung zum Schutz des St. Lucia Sees. Ihr wichtigster Förderer aus der Wirtschaft ist Unilever.

Unilever hat die Verantwortung erkannt, die natürlichen Ressourcen zu schonen und engagiert sich daher weltweit in Projekten zur nachhaltigen Entwicklung. In Südafrika liegt der Schwerpunkt auf dem Bereich Wasser.

Während der letzten vier Jahre hat Unilever 1 Millionen Rand für Umweltbildungsprojekte in dieser Region zur Verfügung gestellt, nicht nur durch direkte Spenden, sondern auch durch den freiwilligen Einsatz der Mitarbeiter und der Bereitstellung von Computerausrüstung und Unterrichtsmaterialien.

Die Projekte „Heiliger Wald“ und „Grünes Dorf“ dienen dem Schutz des St. Lucia Sees und haben folgende Komponenten: Entfernen von fremden Pflanzen- und Baumarten aus dem Dukuduku Wald, Wiederanpflanzung von einheimischen Arten, Umweltbildung und Begrünung des Dorfes Khula mit einheimischen Baumarten, Einführung von Wasserrecyclinganlagen und eines nachhaltigen Wassermanagementprogramms. Darüber hinaus wurde ein Projekt zum Schutz seltener Arten gestartet.

Amon Sithole

Chairperson of Simunye Community Tourism Association

Development and Implementation of Simunye Initiatives

Simunye Tourism Association was established through the Eco-Partners Programme using limited funds to bring about empowerment to people by creating economy through tourism. Each Tribal Authority sent three representatives (total of 21 people) to become part of the Tourism Indaba. People that were sent had no vision and therefore Champions were elected. The 21 representatives formed the Management Committee and seven of which were elected as a working group. Simunye Association has assisted in clarifying the differences between municipality initiatives and the local economic development initiatives. Through the Eco-Partners Programme, it has strengthened the relationship between KZN Wildlife and the communities, as a result a Community Levy Trust was established. The Community Levy Trust has funded various community driven projects - Sokhulu Explorer, Computer laboratory (Khula village) and the establishment of the Mabaso Game Reserve.

Measurable results

Achievements

- Loose agreements signed with the Ingonyama Trust
- Fencing of Reserves
- Game donations
- KZN Wildlife Community Levy Funding

Environment

- Fencing creates protected environment of lake edge
- Management measures in the game reserves being proactive
- Past destruction of vegetation now being controlled
- Sustainable market garden projects outside the protected areas
- Bore holes for water use in the reserve
- Controlled permit system for access and resource management

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- Introduction of endemic species i.e. red duiker

Social

- Nature guide training 34 students earlier in the year
- Further 280 learners signed TLP
- Community members appointed as managers in the reserves
- Formation of legal management entities to control funds and administration
- Social compact programs and tourism committee groups to all authorities

Economic

- Corporate groups are beginning to realise social compact and awareness entities
- Management positions for community members identified and trained
- Funding programs are being introduced by authorities and NGOs
- Tourist flow will create additional long term job opportunities
- Local employment for during and after construction
- Community tourism projects will form integral part of regional tourism development (security, jobs, participation)

Sustainability

- Income and job creation - long term
- Income to be controlled through Section 21 Companies
- Training and upliftment create social foundation
- Craft and market garden to support lodges

Monitoring

- Community meetings at various levels of engagement
- Accountability of Board members under Section 21 Companies
- Public awareness
- NGO's monitoring programs e.g. Wildlands Trust, WWF, Green Trust

Lessons learned

- Communication and consultation is very important for the success of community-based projects.

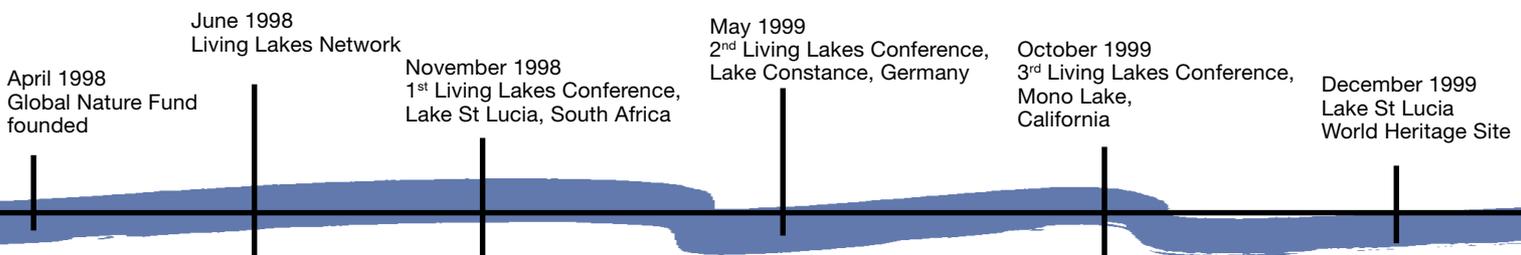
Amon Sithole,

Vorsitzender, Simunye Tourismus-Vereinigung des Greater St. Lucia Wetland Gebietes

Simunye Tourism Association was established through the Eco-Partners Programme using limited funds to bring about empowerment to people by creating economy through tourism.



Acht Gemeinden in der Umgebung des Greater St. Lucia Wetland Parks gründeten den ersten lokalen Tourismusverband, der Boote und Kanus unterhält und Exkursionen anbietet. Bei seiner Arbeit kooperiert der Verband eng mit der Nationalparkverwaltung KZN Wildlife. Der Verband etablierte ein Pilotschutzgebiet der Gemeinden. Fremde Bäume wurden auf Hunderten von Hektar geschlagen und dafür einheimische Arten gepflanzt. Die Schaffung von Arbeitsplätzen durch nachhaltigen Tourismus ist eines der wichtigsten Ziele. Über 300 Jugendliche werden momentan in einem Tourismus-Trainingprogramm ausgebildet.



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Business Leads the Way

Best Practise Example: Laguna de Bay, Philippines

Chito S. Macapagal

General Manager, Unilever Philippines

Business Shares the Lead

Unilever Philippines is a consumer products company which is helping to restore a dying river and its estuaries as well as sustain life in a threatened lake in the Philippines.

To succeed requires the highest standard of corporate behavior with our employees, consumers, societies, and the world we live in. This statement can be found in Unilever's corporate purpose, being a company that markets branded foods, home and personal care products for consumers all over the world. Unilever's business is committed to meet the everyday needs of people everywhere. At the core of this commitment is caring for the environment.

Unilever has operated in the Philippines for 75 years now, since 1927. Its factory in the heart of Metro Manila, straddles between small tributaries of the Pasig River - the 25km waterway stretching between Laguna de Bay and Manila Bay. It has been a vital part of the history and fortunes of the region. The object of Unilever

Philippines environmental campaign is to reverse the fortunes of a dying river and to sustain the life of a threatened lake.

What was our motivation to embark on such initiatives?

First, it makes economic and social sense for the people of Metro Manila. Pasig River is the critical lifeline for the ecological health of Laguna de Bay and Manila Bay which is the source of livelihood for thousands of small fisherfolks. Secondly, our company - for 75 years now has been operating near the river where a number of our employees live. Lastly, the Pasig River campaign is one of Unilever's worldwide initiatives addressing Water Sustainability. So our involvement with Laguna de Bay all started with its biggest tributary, Pasig River. It is the only waterway where Laguna Lake can exit the sea. Throughout the 20th century, the health of the Pasig began deteriorating. By the 1980s there was almost no river tourism and fishing was non-existent. The Pasig River was declared biologically dead. In 1993, the Pasig River Rehabilitation Program (PRRP) was launched. Its aim was to improve water quality to Class C (with thriving aquatic life and clean enough for non-contact recreational activities such as boating and rowing) and to improve the environmental state of the entire river system. Endorsed by the President, PRRP was backed by the United Nations Development Programme, government agencies, industry and business (including Unilever Philippines), private organisations, the World Bank, Japan International Cooperation Agency, as well as numerous non-governmental organisations.

The agenda is bold and spans 15 to 20 years, maybe more. It includes ridding the river of solid waste, redeveloping the waterfront and renovating bridges as well as supporting community-based programs. In 1999, PRRP and other associated organisations evolved into the Pasig River Rehabilitation Commission (PRRC) which today coordinates a \$1B Pasig River Development Plan. Unilever Philippines was invited to join the commission last year, representing the private sector. Since 1993, Unilever Philippines contribution to the rehabilitation programme has been focused on those areas that we think we can do:

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- Ensuring our own operations do not pollute;
- Encouraging our neighbors not to pollute;
- Encouraging wider participation in supporting the establishment of Clean River Zones, in partnership with an NGO called Sagip Pasig Movement (Save Pasig Movement).

How do we walk the talk?

Unilever Philippines commitment to a cleaner, greener river starts within its plant. The factory continues to achieve reductions in amounts of water used and wastewater generated during manufacturing processes, as well as reductions in power use, solid waste, etc. The factory achieved ISO 14001 certification years ago. Perhaps its best-known on-site contribution is the companies domestic sewage treatment plant - the first such plant in Metro Manila, completed in 1998. Treated sewage water (from the companies domestic water use - from canteens and toilets) flows into a fishpond full of healthy fresh water fish, before discharging into the river. We are not required but nevertheless, we do it. The company has also been proactive in introducing new technologies in the Philippines. For example, it introduced the first 100% biodegradable active ingredients in powders and detergent bars in 1993. Again, we were not required to do this.

In 2000, Unilever opened a dedicated Save Pasig Action Center within the Unilever compound. This centre is much used by numerous Pasig River advocates for debate, workshops, and related events. Unilever is actively involved with a number of partnership programs which ultimately benefit the Pasig, with the help of SPM. Unilever conducts regular clean-up drives and community-based waste management training in neighboring communities.

Our manner of participation is that of a multi-sectoral one. Examples of this are the Paco Environmental Enhancement Program (PEEP), a public market project in partnership with a World Bank funded project group under the Department of Environment and Natural Resources and the stall-holders of Paco Public Market - a large wet market close to the factory. Working with NGOs and community groups, the project encourages better management of market waste such as discarded coconut husks and other fruits and vegetables, meat carcasses and fish as well as packaging and other debris that stall-holders

find easier to throw into the river. The other is the Clean River Zone which is a finite and defined zone, multi-sectoral yet coordinative in all river rehabilitation efforts. They are envisioned to be organised communities that practice and manage community waste in a sustainable manner. Community is comprised of residential, commercial, industrial establishments, public markets, and schools. Getting organised and going towards one direction was the biggest challenge yet. Participation methods vary depending on the need of our target audience. It all started mostly with meetings with the community, then organising, conducting training seminars for them. Finally, when all the stakeholders were organised, a confederal body was formed where each have their own representatives to discuss and decide which way this group will go.

How did Unilever Philippines prepare itself to get into this leadership role?

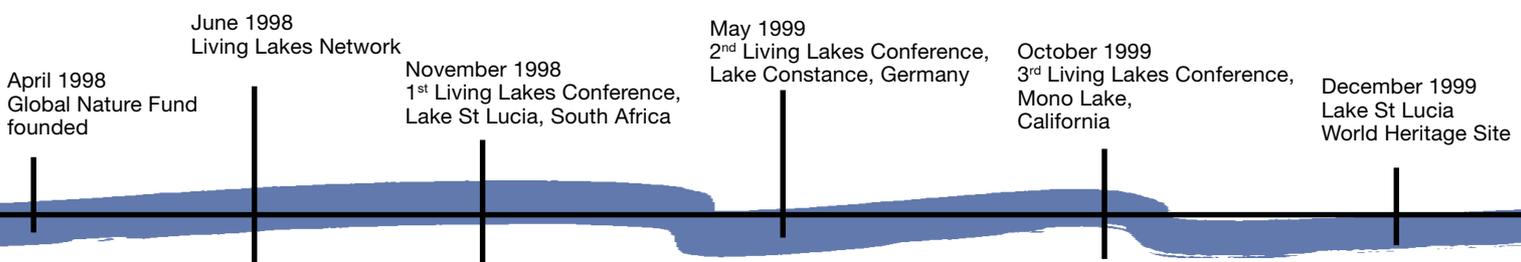
First, we learned how to SWIM (Sustainable Water Integrated Catchment Management). SWIM principles define how Unilever can make effective contribution to community water initiatives through partnership. I know my colleague from Unilever, Dr. Graham Brown, will not mind if I say something about SWIM. The basic principles are as follows:

In selecting a water project:

- Does it make economic and social sense?
- Is there a measurement system for monitoring conditions?
- Is there scope for participatory approach in water development and management?

A shared goal for all concerned citizens and stakeholders in the river rehabilitation is to see this river, which has been declared biologically dead in the 80s, alive and vibrant once more. Efforts so far have brought a remarkable reversal of the steep degradation of the river to an appreciable improvement. From 327 tons per day, the BOD load went down to 230 tons per day between 1998-2000. The hope is to get the river alive by 2020-2025.

It is very important to achieve this without any further delay as the fate of a higher order body of water, Laguna de Bay, is at stake. It is the



learnings both past and current in the Pasig River Rehabilitation which emboldened us to embark and seek attention to ensure Laguna de Bay will sustain its life today and for generations to come. Our imperative and driver for Laguna de Bay is the fact that no such important body of water (fresh water source at that) can wait. Unilever Philippines support for the reforestation of La Mesa Dam, which is currently the only source of freshwater for Metro Manila, drove us further in realising that something needs to be done now with Laguna de Bay and not 20 to 25 years hence. The Pasig River tragedy should be enough for us to learn our lessons.

Our problem was where and how do we start?

The Living Lakes brought us, in a way, some answers. Again, Unilever went to work once more in seeking a partner for the Laguna Lake project. Laguna Lake Development Authority proved to be the natural and sensible partner considering their mandate to preside the management of the lake. This also marked the start of the Philippines campaign to get a full partnership with the Global Living Lakes network which literally took 2 years starting in Liverpool in a SWIM Conference in 1999, ending last summer at Lake Baikal in Russia.

On our road to partnership and as our way of complying to the challenges given to us during the period of our candidacy, we formed a tripartite group via a memorandum of understanding forged between Unilever, Laguna Lake Development Authority, and our chosen NGO - the Society for the Conservation of Philippine Wetlands. It is our belief that through this partnership - the coming together of the state (LLDA), a market driven business (Unilever), and citizens participation (SCPW) - the true spirit of Agenda 21 can be made alive. We know that in our path to seeking sustainability for our lake there is going to be countless and continuous dialogues that is going to take place which will eventually decide the fate of the lake. We have to ensure that such dialogues will take place and that there will be a party whom to talk to and who will listen.

The same triangle/tripartite approach should cover such dialogues. To those stakeholders who would not want to talk to government - we have

the business and NGO to talk to. If a group is tired of talking and listening to NGOs then they can talk to government and business. And for those who doubt the motives of business, they have the government and NGO to talk to. We can also liken or compare ourselves to a wooden bridge. Wouldn't we all be braver and feel more confident as we cross this bridge of the unknown, not in one but all three planks laid down side by side? Businesses like ours would not wish to take the role of government. However, it is expected of us to ensure that our belief is reflected in our daily operations and decision making processes.

Let me end by saying that concern for the environment does not come from policy, code or principles in manuals. They simply come from people who really care.

Chito Macapagal

Hauptgeschäftsführer, Unilever Philippinen

Unilever Philippinen unterstützt die Renaturierung des Pasig-Flusses und der Laguna de Bay, des größten Sees des Inselstaates, nahe der Hauptstadt Manila. Der Pasig fließt auf einer Länge von 25 km zwischen der Bucht von Manila und der Laguna de Bay.

Es gab verschiedene Gründe für das Unternehmen, Initiative zu ergreifen:

1. Tausende von Fischern im Großraum Manila sind von einem intakten Ökosystem des Pasig und der Laguna de Bay abhängig.
2. Das Unilever-Werk liegt am Pasig-Fluss, an dessen Ufer auch zahlreiche Mitarbeiter des Unternehmens leben.
3. Die Kampagne ist Teil einer weltweiten Initiative von Unilever zum nachhaltigen Umgang mit Wasser.

Unilever Philippinen hat mehrere Maßnahmen zur Wiederherstellung des Pasig ergriffen. Erstens wurde der eigene Betrieb umweltgerecht gestaltet. Neben einer ISO 14001 Zertifizierung hat Unilever als erstes Unternehmen in der Region eine betriebseigene Kläranlage eingerichtet. Des Weiteren wurde neue umweltfreundliche Produkte auf den Philippinen eingeführt, darunter 100% biologisch abbaubare Substanzen für Wasch- und Reinigungsmittel.

Darüber hinaus richtet Unilever das Aktionszentrum „Rettet den Pasig-Fluss“ ein, indem sich Interessengruppen treffen und Veranstaltungen durchgeführt werden. Gemeinsam mit NGOs und lokalen Bevölkerungsgruppen wurden Programme zur verbesserten Abfallentsor-

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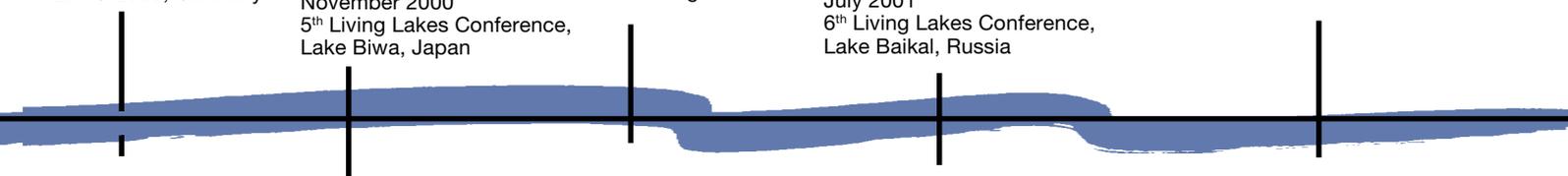
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gung auf dem Paco Markt und zur Säuberung und Re-
habilitierung von Flussuferzonen umgesetzt.

Wichtig für die erfolgreiche Übernahme der Führungs-
rolle von Unilever Philippinen war die Orientierung an
den SWIM (Sustainable Water Integrated Catchment
Management) - Prinzipien, einer Anleitung des Unile-
verkonzerns für die Umsetzung nachhaltiger und parti-
zipatorischer Wasserprojekte. Mittlerweile hat sich der
Zustand des Pasig-Flusses deutlich verbessert. Bis 2020
soll das Fließgewässer wieder völlig hergestellt sein.
Von diesem Erfolg ist auch die Verbesserung der Was-
serqualität der Laguna de Bay maßgeblich abhängig.
Die beim Erhalt des Pasig gemachten Erfahrungen bringt
Unilever nun im Rahmen der Partnerschaft mit der staat-
lichen Seenentwicklungsbehörde (LLDA) und der nicht-
staatlichen Gesellschaft für den Schutz der philippini-
schen Feuchtgebiete (SCPW) an der Laguna de Bay ein.

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Amy M. Lecciones

**President, Society for the Conservation
of Philippine Wetlands**

A Clear Partnership:

**Sharing a Vision for
Laguna de Bay**

The Society for the Conservation of Philippine
Wetlands (SCPW) is the NGO partner in the
tripartite entity called CLEAR or Conservation
of Laguna de Bay's Environment and Resources.
It is a non-stock, non-profit organization
registered at the Philippine Securities and Ex-
change Commission in 1998. Its mission is to
advocate the conservation and management of
Philippine wetlands. The SCPW is a very young
organization but its members enrich its capability
by bringing in their individual expertise and
resources. To optimize its resources and create
impact, the SCPW has decided to focus on two
aspects: (1) pursue activities related to the Ramsar
Convention's Outreach Programme
(Communications, Education, Public Awareness
or CEPA) being the National NGO Focal Point
in the Philippines for CEPA; and (2) engage in a
site-based project to demonstrate wetland
conservation/management strategies.

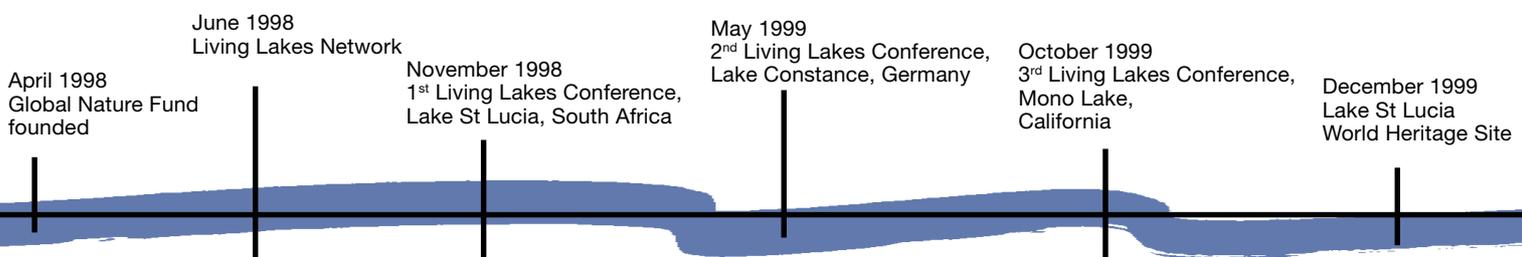
The concept of this partnership appealed to
SCPW because of its practical and holistic

approach. It provided the opportunity to work
with the other sectors of society namely the
government (Laguna Lake Development
Authority), the industry (Unilever), and most
importantly, the community. To make the
tripartite work, the SCPW made sure at the outset
that prospective partners' goals and objectives
are the same as the Society's. The partnership
was formalized through a Memorandum of
Understanding which also defines the roles and
responsibilities of each of the three members.
This was further supported by setting protocols
to operationalize the partnership through a series
of planning workshops among the partners. The
partners try to ensure that all processes are trans-
parent and participative.

CLEAR has an Action Plan which is continuously
being validated with its community stakeholders.
In drawing up activities with the community,
the following are considered: (1) priority and
acceptance at the community level, (2)
mechanism for monitoring progress, and (3)
availability of resources and (4) chance of
success.

In its first year of existence, CLEAR has achieved
modest accomplishments by undertaking
activities that promote the conservation of
Laguna de Bay. As a result, it has generated
interest from other groups who would want to
partner with CLEAR in its work. It has also created
awareness as shown by stakeholders reacting
to newspaper articles on the Lake, and the
number of inquiries received by CLEAR about
the Living Lakes Network and other wetland
conservation aspects. CLEAR received a

*Chito Macapagal, Unilever Philippines, Lenni Santos-Borja,
Laguna Lake Development Authority and Amy Lecciones
(SCPW) presenting the tripartite partnership CLEAR -
Conservation of Laguna de Bay's Environment and
Resources. Moderation: Anne Levesque.*





Laguna de Bay is the largest lake in the Philippines with a surface area of 900 km².

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commendation from the Philippine Congress for its successful membership bid of Laguna de Bay as the 18th Living Lakes partner.

The CLEAR partners realize that the goals they have set for themselves will only be achieved by working together and expanding support for its work among local stakeholders. Sharing the same vision for Laguna de Bay has set them going in the right direction.

Amy M. Lecciones

Präsidentin, Gesellschaft zum Schutz der philippinischen Feuchtgebiete

Die Gesellschaft zum Schutz der philippinischen Feuchtgebiete (SCPW) ist eine NGO und Partner der Initiative CLEAR (Schutz von Natur und Ressourcen der Laguna de Bay). Ziel der Organisation ist es, sich für den Schutz der philippinischen Feuchtgebiete einzusetzen. SCPW konzentriert sich auf zwei Schwerpunkte: (1) Fortführung des Ramsar-Schutzprogramms und (2) Engagement in einem örtlichen Projekt zur Demonstration von Strategien für Feuchtgebietsschutz und -management.

CLEAR hat einen Aktionsplan, der kontinuierlich mit den betreffenden Gemeinden abgestimmt wird. Dabei wird Folgendes berücksichtigt: (1) Priorität und Akzeptanz auf Gemeindeebene, (2) Mechanismen für das Monitoring von Fortschritten, (3) Verfügbarkeit von Ressourcen, (4) Chance auf Erfolg.

Im ersten Jahr hat CLEAR bereits Erfolge erzielt. So ist das Interesse anderer Gruppen an der Zusammenarbeit mit CLEAR und das Bewusstsein unter den Verantwortlichen für den Schutz der Laguna de Bay gewachsen.

Adelina Santos-Borja

Division Chief, Laguna Lake Development Authority, Philippines

**Building Partnerships
Towards Sustainable Lake
Management**

1. Introduction

Laguna de Bay is the largest lake in the Philippines with a surface area of 900 km², a shoreline length of 238 km, and a mean depth of 2.5 meters. The average water volume is 2.25 million m³ and this serves a variety of uses such as for irrigation, power supply, navigation, recreation and fishery. The latter, that includes both open water fishery and aquaculture, remains as the most dominant use of the lake.

The watershed area is 2,830 km² and consists of 24 sub-basins and approximately 100 streams and a floodway that drain directly to the lake. There is only one outlet, the Pasig River, which connects the lake to Manila Bay. During low lake level, the water of the Pasig River enters the lake and if the backflow is sustained such as during the dry season, Laguna de Bay becomes a brackishwater lake.

The lake is a vast resource of socio-economic significance. It sits in the heart of the country's

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area for urban and industrial development and is bounded by 5 provinces and a portion of Metropolitan Manila, 12 cities and 49 municipalities of which 27 are lakeshore towns. Because of its strategic importance, the Philippine Government created the Laguna Lake Development Authority (LLDA) through Republic Act 4850 on July 18, 1966.

On October 22, 1969 the Laguna Lake Development Authority started its operation as a semi-government corporation with the mandate to carry out the development of the Laguna Lake Region with due regard and adequate provisions for environmental management control, preservation of the quality of human life and ecological systems, and the prevention of undue ecological disturbances, deterioration and pollution. Further amendments to RA 4850 were made through Presidential Decree 813 and Executive Order 927 on October 17, 1975 and December 16, 1983, respectively. These expanded the mandate of the LLDA to have exclusive jurisdiction to issue permits for the use of all surface waters of the lake for any project or activity within the region and the power to control and abate pollution. At present the LLDA remains as the only agency in the Philippines with the specific mandate to manage a lake, which is more popularly called Laguna de Bay, in consideration of the history on how the lake got its name.

The major activities of the LLDA are: regulation of industries that discharge wastewater, regulation of aquaculture, community development, river rehabilitation, shoreland management, planning and project management, international and local cooperation, legal services, water quality monitoring and research and development.

The LLDA has very limited manpower who undertake various assignments based on its mandate within the entire basin of 3,730 km². Due to various austerity measures being imposed on all government agencies, the LLDA is therefore compelled to perform its enormous task based on limited number of personnel. With this condition, coupled with the adoption of Agenda 21 of the United Nations Conference on Environment and Development, the recognition of the important role of non government organizations and the promotion

of environmental awareness, the LLDA is faced with the reality that it cannot do its job alone. It acknowledges that partnership is a key element in managing the resources of the lake. This is also in recognition of the different stakeholders in the Laguna de Bay Region that includes policy makers, planners, regulators, infrastructure developers, research and development institutions, local government units, and resource user communities.

2. Working with Partners

The formation of strategic alliance with people's organizations and non-government organizations is needed to gain wide support in the implementation of LLDA's plans and programs and in the implementation of its rules and regulations within the region. In the advent of the 1990's, the LLDA has also embarked on a more comprehensive approach in the protection of the lake through a basin-wide approach on lake management.

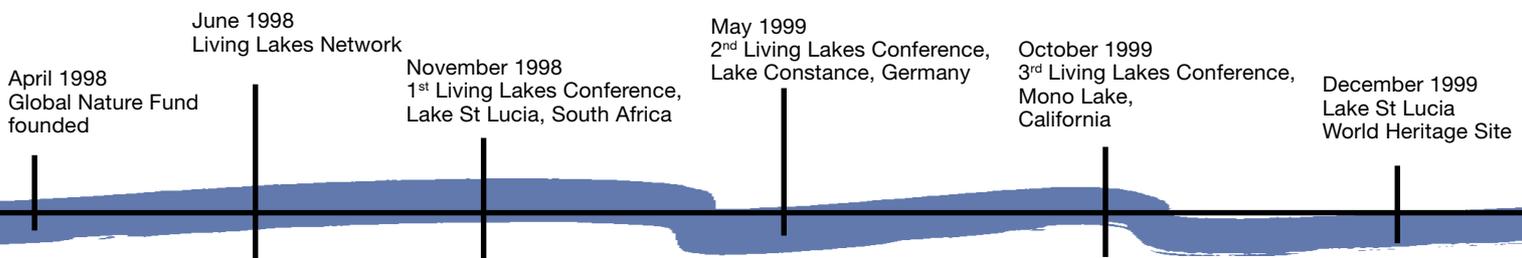
2.1 The Local Government Units

It is worth mentioning that with the passage of the Local Government Code of the Philippines (Republic Act 7160) in 1991, in which one of the provisions grants municipalities the exclusive authority to grant fishery privileges in municipal waters, some fish pen operators and local government officials of certain lakeshore towns challenge in court the authority of the LLDA to issue permits for fish pens and other fish enclosures. In December 1995, the Supreme Court of the Philippines upheld the authority of the LLDA to issue fishery permits. The most striking basis of the decision is hereby quoted:

„Laguna de Bay therefore cannot be subjected to fragmented concepts of management policies where lakeshore local government units exercise exclusive dominion over specific portions of the lake water. The garbage thrown or sewage discharge into the lake, abstraction of water therefrom or construction of fish pens by enclosing its certain area, affect not only that specific portion but the entire 900 km² of lakewater. The implementation of a cohesive and integrated lake water resource management policy, therefore, is necessary to conserve, protect and sustainably develop Laguna de Bay.“

Supreme Court of the Philippines, December 8, 1995

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This decision further emphasized the wisdom of the authors of RA 4850 on creating a single corporate body to manage Laguna de Bay. Recognizing the important role of the local executives on environmental management, the LLDA intensified its efforts in involving them in the implementation of its rules and regulations. As a form of encouragement in embarking on environmentally related projects, the LLDA increased the sharing scheme for the fee collected from fish pens and fish cages in the lake. From the fish pen fee of P 5,000.00 per hectare per year (1 US \$ is about P 52.00), every lakeshore municipality receives a share of 15 % and an additional 20 % if there are fish pens and fish cages off their shore. It is specified in the agreement that their share should be used to finance environmental programs or projects.

2.2 The River Rehabilitation and Protection Council/Foundation

With the adoption of the basin-wide approach on lake management, the LLDA launched a River Rehabilitation Program. Its major component is the creation of a River Rehabilitation and Protection Council (RPPC) for every sub-catchment in the Laguna de Bay Region with the following functions:

- Pursue a River Rehabilitation Program for each major tributary river of the lake and all its minor tributaries
- Mobilize various sectors in the community to be actively involved in the efforts to protect the rivers and the lake

Each RPPC is composed of members from all sectors of the community like the local government, academic institutions, religious groups, people’s organizations, non-government organization, other government agencies, and the industries especially those that discharge their effluent on the river or on any of its tributaries. Through this program, the Environmental Army was organized, a volunteer organization consisting mainly of farmers and fisher folks, whose main task is to clean the rivers and creeks of solid wastes, garbage and other debris which have been indiscriminately dumped into the waterway. The men and women of the Environmental Army exemplify the spirit of volunteerism. They play a vital role in raising the awareness and motivation of various sectors

so that they will be continuously involved in the rehabilitation effort.

The LLDA grants a seed money of P 50,000.00 (about US \$1,000.00) to each council in order to finance its activities including the registration with the Philippine Securities and Exchange Commission to gain legal status as a non-government organization. Upon registration, the council is transformed into a foundation. In 1999, the LLDA institutionalized the River Rehabilitation and Protection Councils/ Foundations (RRPC/F). By June 2001, all the RPPC/F were federated and is now called the Federation of River Basin Councils/Foundation. A conference of the RRPC/F is held every year where each council or foundation present their accomplishments and update the other councils or foundations on their present projects and future plans and programs. Likewise it serves as an occasion for enriching their knowledge through lectures by invited resource person on matters concerning solid and liquid waste management, waste exchange, and other topics of interest and concern geared towards enhancing the capabilities of the members to perform their tasks.

2.3 The business sector

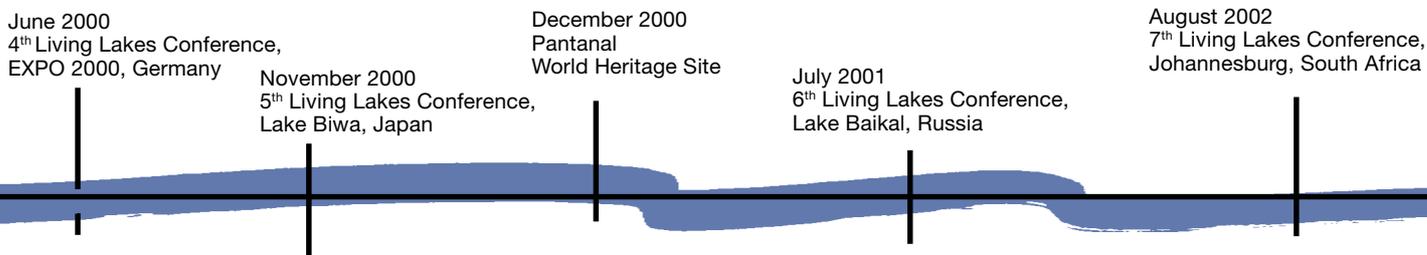
There are about 3,768 industrial firms located within the watershed that discharge wastewater effluent into the lake and its tributaries. As a regulatory measure for erring industrial establishments, the LLDA issues cease and desist order, notice of violation of wastewater effluent quality standard, and notice of violation for operating without permit.

From being a purely regulatory agency that pioneered the Environmental User Fee System (EUFS) in the Philippines, the LLDA evolved into forging closer coordination among its client industries. It provides training to Pollution Control Officers of different industrial establishments leading to their accreditation and gives lectures on environmental rules and regulations and water quality monitoring and assessment.

3. A new kind of partnership

The candidacy of Laguna de Bay to the Living Lakes network gave birth to a new kind of partnership. On June 7, 2001, the tripartite partnership among the Laguna Lake Development Authority, Unilever Philippines

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(ULP), an international home and personal care manufacturing company, and the Society for the Conservation of Philippine Wetlands (SCPW), a non-stock, non-profit organization duly recognized by Philippine laws and composed of members with technical training on capacity building and biodiversity assessment, was formally organized through the signing of a Memorandum of Agreement. The name CLEAR was adopted which stands for „Conservation of Laguna de Bay’s Environment and Resources“ with the following objectives:

Primary objective: to organize a concrete partnership ensuring the continuity of efforts in overseeing the acceptance and consequent management of the Laguna de Bay as a Living Lakes Partner of the Global Nature Fund.

Specific objectives:

- To fully characterize Laguna de Bay in terms of its biodiversity status and ecological richness;
- To increase the awareness of stakeholders on the importance of conserving the Laguna de Bay and its resources through the conduct of information, education and motivation campaigns among the lake’s stakeholders;
- To conduct capacity building activities among the River Rehabilitation and Protection Councils/Foundations and the Fisheries and Aquatic Resource Management Councils within the Laguna de Bay Region, which are relevant to lake basin management in order to aid them in empowering their immediate communities towards conserving the Laguna de Bay;
- To conduct advocacy activities which will encourage the active participation and concern of the various industries around the lake to support various conservation efforts being undertaken.

Each of the partners’ specific roles and responsibilities are also presented as follows:

The ULP Inc., as the initiating entity and private sector partner shall:

- a. Provide funding support for advocacy initiatives such as IEM campaigns, production of IEM materials, capacity building trainings/

seminars, school outreaches, and other activities relevant to the conservation of Laguna de Bay;

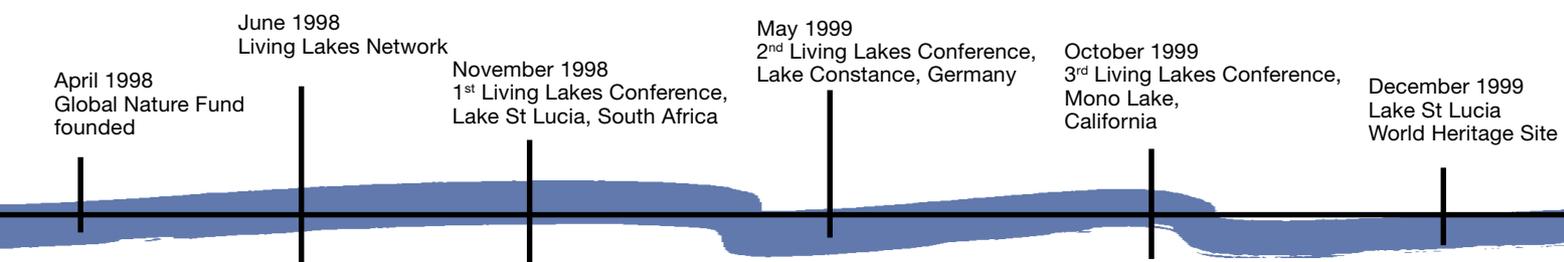
- b. Initiate activities that would influence and mobilize the business sector towards corporate social responsibility and advocacy for lake conservation efforts.

The LLDA, as the collaborating agency shall:

- a. Coordinate the tripartite partnership’s activities in view of its objectives and goals;
- b. Conduct information sourcing and relevant research on the lake’s biodiversity;
- c. Provide funding support on biodiversity studies in the lake and on environmental education project, in full view and consideration of the LLDA’s budget and financial guidelines.
- d. Provide logistical and coordination support in studies on the biodiversity of Laguna de Bay, production of IEM materials, and the conduct of capacity building trainings/seminars for the various communities within the lake’s watershed.

The SCPW, as the NGO partner, shall:

- a. Design and implement advocacy activities for the conservation of Laguna de Bay such as capacity building trainings/seminars, IEM campaigns and IEM material distribution;
- b. Provide technical expertise and design and conduct training courses for the capacity building of the River Rehabilitation and Protection Councils/Foundations and the Fisheries and Aquatic Resource Management Councils and other relevant groups in the Laguna de Bay watershed;
- c. Be the focal point for coordination with the Global Nature Fund and the Living Lakes Partnership;
- d. Coordinate with other environmental NGOs working in the Laguna de Bay Region, facilitate funding request and act as fund administrator in accordance with the standard operating policy of the Global Nature Fund once Laguna de Bay has become a Living Lakes Partner.



The LLDA, ULP and SCPW further agree on the following:

- a. That other NGOs can be included in the future; and
- b. An Annual Work Plan and a Budget Plan specifying dates and expected outputs as well as reporting requirements for the purpose of monitoring and evaluating their respective activities will be formulated.

On August 2, 2001, representatives of CLEAR presented their accomplishments at the 6th Living Lakes Conference at Lake Baikal, Siberia, Russia. They were able to achieve one of their objectives, i.e. Laguna de Bay was unanimously accepted as a partner of the Living Lakes Network. One of the most noteworthy comments on CLEAR is „putting Agenda 21 (1992 Earth Summit in Rio de Janeiro, Brazil) into practice.“ CLEAR itself is unique, as it embodies a mutual tripartite partnership among a government agency, a private sector/industry and an NGO partner, which work towards the same objective of sustainably managing and conserving the resources of Laguna de Bay. They intend to cascade their efforts with LLDA as the lead for government/semi-government agencies and LGU's, ULP for industries and the private sector, and the SCPW for non-government organizations.

4. A new LLDA

With the complex web of the different stakeholders in the Laguna de Bay Region, forging strategic alliance with the different institutions and stakeholders, has become both as a strategy and a necessity. The LLDA is currently working on its institutional re-engineering, that is, to transform itself from a mere lake authority to an integrated water

resources management and development authority. It will become the apex body in the Laguna de Bay Region with the responsibility of coordinating a process towards the development of an integrated watershed management for the lake. The re-engineered LLDA further emphasizes the significant importance of institutionalizing stakeholders' participation and recognizes that adaptive collaborative management is recognized as the key to a better environment in the lake and its watershed.

Adelina Santos-Borja

*Abteilungsleiterin, Laguna See
Entwicklungsbehörde, Philippinen*

Die Laguna de Bay ist der größte See der Philippinen mit einer Oberfläche vom 900 km², einer Küstenlinie von 238 km Länge und einer durchschnittlichen Tiefe von 2,5 m. Das durchschnittliche Wasservolumen von 2,25 Millionen m³ wird für Bewässerung, Energieerzeugung, Schifffahrt, Erholung und vor allem Fischerei genutzt.

1969 begann die Arbeit der Laguna See Entwicklungsbehörde (LLDA) als halbstaatliche Institution mit dem Ziel, die Entwicklung der Laguna-Region so zu gestalten, dass sowohl die Lebensqualität der Menschen als auch das Ökosystem erhalten bleiben. Durch einen offiziellen Erlass wurde der LLDA ein umfangreicheres Mandat zugesprochen. LLDA ist somit die einzige Agentur in den Philippinen mit einem spezifischen Auftrag zum Seenmanagement.

Die Hauptaktivitäten der LLDA sind: Regulierung der der Industrieabwässer, Regulierung der Aquakultur, Gemeindeentwicklung, Flussrehabilitierung, Management der Uferbereiche, Planungs- und Projektmanagement, internationale und lokale Kooperation, legale Dienstleistungen, Monitoring der Wasserqualität, Forschung und Entwicklung.

Für die LLDA ist die Zusammenarbeit mit anderen Partnern eine wichtige Unterstützung. LLDA startete ein Fluss-Rehabilitierungs-Programm im Einzugsgebiet der Laguna de Bay. Mit der Hilfe von freiwilligen Helfern sollen die Flüsse gereinigt und das Umweltbewusstsein gefördert werden.

Vor dem Eintritt in das Living Lakes Netzwerk wurde eine Partnerschaft mit Namen CLEAR (Schutz der Umwelt und der Ressourcen der Laguna de Bay) zwischen LLDA, Unilever Philippinen und der Gesellschaft zum Schutz der Philippinischen Feuchtgebiete (SCPW) gegründet.

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Agenda 21

Authorities Catalyzing Change

**Best Practise Example:
Lake Constance,
Germany, Austria, Switzer-
land**

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Switzerland

Dr. Tillmann Stottele

**Director of the Office for Environment
and Nature Conservation, City of
Friedrichshafen, Germany**

Agenda 21 at Lake Constance

Structure

1. Local Agenda 21 for the city of Friedrichshafen
2. Cooperation between communities and district authorities in the cooperation area Lake Constance-Oberschwaben
3. Agenda 21 for the international region of Lake Constance
4. Interaction between authorities and public commitment: perspectives for a sustainable development

Partners in the Agenda Process

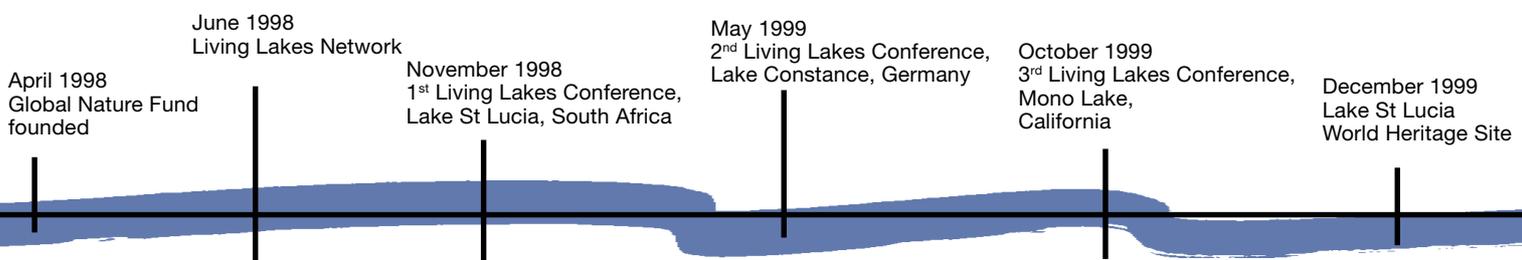
It is important that all community partners set up and implement the Local Agenda 21 in a joint and interactive process

- City council and politics
- Administration
- Trade, industry, commerce, and tourism
- Agriculture and forestry
- Environmental and conservation organizations (NGOs)
- Educational institutions
- Churches and religious communities
- Trade unions
- Clubs and associations
- Press and media
- Interested public

Organization of the Local Agenda Process

- Authorized representative for the Agenda/ Agenda office as central coordinator - internal or external
- Public forums, round tables, and project teams as providers of ideas, working committees, and monitoring bodies
- Agenda advisory board as additional agreement committee
- Agenda working group as internal interface within administration
- Municipal council and integrated committees as executive bodies for political consulting and decisions

Discussion about the role of authorities in the Agenda 21 process at Lake Constance: Dr. Tillmann Stottele, City of Friedrichshafen, Patrick Trötschler, Lake Constance Foundation, Isabel Fezer, Tourism Lower Lake Union, Prof. Aitken Clark, Moderator of the session and Joachim Kopf, KopfAG.



Strategies on the way to set up and implement the Local Agenda 21

- Individual commitment (Council decision, Charter of Aalborg)
- Public participation via a consensus-oriented consultation process, with special attention allocated to women and young people
- Action plan consisting of a directive, measurable objectives, instruments for their implementation, catalogue of measures with priorities and time frames
- Monitoring of success-based on stocktaking and comparable indicators
- Exchange of experiences and cooperation between communities and regions

Objectives of the Agenda 21 process in Friedrichshafen

- Improve the citizens' quality of life in Friedrichshafen
- Extend soft factors of location to strengthen the economic power
- Efficient resource management to contribute to global environmental protection
- Integrated town planning (economic, social and ecological)
- Service-oriented modernization of management to ensure cost-effectiveness and interests of the citizens
- Promote public commitment and democratic structures

Tasks for the public fora

Objectives: What are our objectives?

Strategies: How do we want to achieve these objectives?

Measures: Which concrete projects do we want to implement?

Projects

- weekly market with regional products
- fair trade coffee
- information for students (e.g. energy saving)
- solar energy for schools

Objectives of inter-community cooperation in the Lake Constance-Oberschwaben area

- Future-oriented development of shared space of life and economy according to the principle of sustainability

- Common approach to the cooperation between communities, economy and regional planning by initiating joint projects
- Equality of all partners interlinked in cooperation area
- Strengthening of regional identity while keeping up cultural and social diversity
- Exchange of experience and learning together
- Extensive marketing work within and outside the region

The international Lake Constance Region

Objectives of the International Lake Constance Agenda 21

- Maintain and promote the Lake Constance region as an attractive area for life, nature, culture and economy and strengthen regional cooperation
- Develop Lake Constance as a model region by encouraging sustainable development
- Establish regional contact centers around the Lake as a strong network of cooperation
- Summarize cross-border exchange of diverse Local Agenda 21 initiatives to mobilize synergetic effects
- Cooperation between Agenda activists and decision-makers to ensure implementation of Agenda 21 objectives

Organization of the International Lake Constance Agenda 21

Local government as a mediator in the Agenda 21 process

Chances at a local level

- Approach to new forms of public participation including responsibility in the sustainable development of a community in their immediate environment
- Fair mediation of all participants' interests in global responsibility („Think global - act local!“)

Chances at a regional level

- Coordinate and strengthen Local Agenda 21 initiatives
- Develop awareness that sustainable development in many fields can only be reached by regional cooperation

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Johannesburg, South Africa

- Exercise and strengthen this cooperation
- Formulate shared visions of the future and take actions according to these visions

Challenges for politics

Sustainable development is so complex that it cannot be implemented only from the base by private initiatives and public commitment, and above all is due to the fact that the Agenda 21 process was initiated from the top (UNCED 1992).

Sustainable development demands strong commitment by governments and local parliaments as well as credible implementation within politics.

Credible political support of the Agenda process is a precondition for:

- the effective implementation by local administration
- public commitment of each citizen
- participation of economy and other social groups

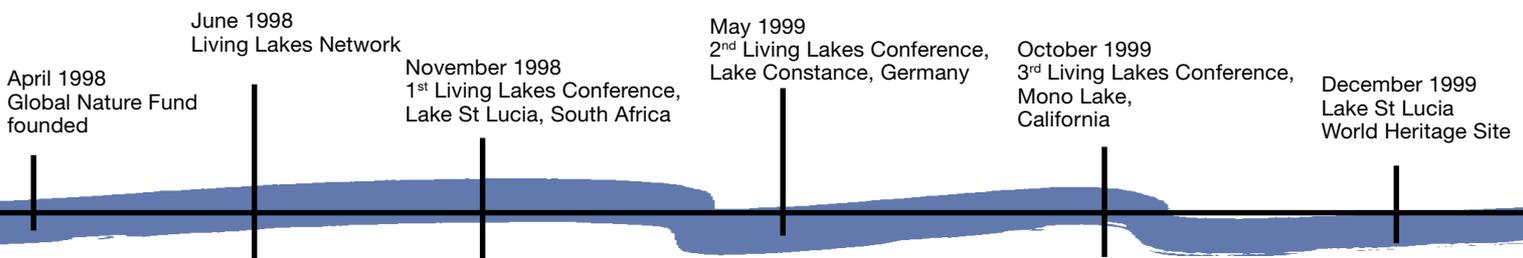
Challenges for local administrations

Authorities themselves have to undergo fundamental learning processes on local and regional levels:

- They should see themselves not as a superior authority of power or a filter for public interests but as mediators, partners and service providers of public commitment
- Decisions and planning procedures should be transparent
- Simple transfer of expert knowledge and information to public
- Self criticism and willingness to learn from public
- Active participation is to be improved by offering training, providing equipment and places for communication
- Willingness to cooperate extensively between the interior departments
- Courage to pursue different paths and make decisions on a trial basis

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An objective of the International Lake Constance Agenda 21 is to develop Lake Constance as a model region by encouraging sustainable development.



Dr. Tillmann Stottele

**Leiter, Amt für Umwelt und Naturschutz,
Stadt Friedrichshafen**

Agenda 21 Prozesse am Bodensee finden auf lokaler, regionaler und internationaler Ebene statt. Beispiele sind:

1. Lokale Agenda 21 Friedrichshafen
2. Zusammenarbeit zwischen Gemeinden und Landkreisen im Kooperationsraum Bodensee-Oberschwaben
3. Agenda 21 für die internationale Bodenseeregion

Der lokale Agenda-Prozess in Friedrichshafen ist wie folgt organisiert:

- Agenda-Beauftragter/Agenda-Büro als zentrale Koordinationsstelle - intern oder extern
- Bürgerforen, Runde Tische und Projektgruppen als Ideenlieferanten, Arbeitsgremien und „Kontrollinstanzen“
- Agenda-Beirat als begleitendes Abstimmungsgremium
- Agenda-Arbeitskreis in der Verwaltung als interne Schnittstelle
- Gemeinderat und zugehörige Ausschüsse als politisches Beratungs- und Beschlussorgan

und hat die Zielsetzung

- Verbesserung der Lebensqualität der Menschen in Friedrichshafen
- Ausbau der weichen Standortfaktoren zur Stärkung der Wirtschaftskraft
- Effizientes Ressourcenmanagement als Beitrag zum globalen Umweltschutz
- Wirtschaftlich, sozial und ökologisch ausgewogene Stadtentwicklungsplanung
- Modernisierung der Verwaltung mit dem Ziel der Serviceorientierung, Bürgernähe und Kosteneffizienz
- Förderung des bürgerschaftlichen Engagements und der demokratischen Strukturen

Behörden als Moderatoren des Agenda-Prozess müssen sich ständigen Lernprozessen unterziehen. Wichtig sind Transparenz der Entscheidungen und Planungsabläufe, Transfer von Fachwissen, Kritikfähigkeit und Bereitschaft, von den Bürgern zu lernen, Verbesserung der Beteiligungsmöglichkeiten durch Schulungsangebote, Bereitstellung von Arbeitsmitteln und Kommunikationsräumen, Bereitschaft zu verstärkter fachbereichsübergreifender Zusammenarbeit intern sowie Mut, neue Wege zu gehen.

Patrick Trötschler

**Project Manager, Lake Constance
Foundation, Germany**

**International Competition
„Environmentally sound
canteen kitchens at Lake
Constance“**

Situation at the outset

About 3.5 million people live in the Lake Constance area and the Lake is one of Germany's most famous tourist and recreation regions. The canteen kitchens (canteens, refectories, conference centres, hospitals, schools, kindergartens, etc.) in the Lake Constance region have the potential for high sales of regional organic products. But until now it was only possible to gain a few canteens as customers. The share of regional organic products in the out-of-house food business is very small. The fact that there is neither a general frame of reference nor a special marketing strategy is an important obstacle for an increase in sales.

Another problem is the big information lack. The decision-makers in canteen kitchens and their staff often don't know much about the special quality and the positive ecological impacts of organic food. So they should get informed and sensitised about the connection between organic agriculture, healthy food, preservation of cultural landscapes and nature protection.

To get in contact with the canteen kitchens, the idea of a competition for environmentally sound canteen kitchens was started in the district of Constance in 1996 and repeated in 2000. The big success and the positive feedback encouraged the organisation group to expand the competition into the international Lake Constance area. In 2001 the idea of an international competition in the region of Lake Constance was developed and implemented. The project won a prize in the international AGENDA 21 competition in the Lake Constance region.

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Goals of the competition

The goals of the competition are attached to the three dimensions of sustainability.

The environmental goals of the competition were:

- Development and establishment of environmentally sound working methods in canteen kitchens around the Lake Constance
- Reduction of food transport in the region

The social goals of the competition were:

- Information of canteen kitchen chefs and personnel
- Establish best practise canteen kitchens
- International know-how transfer around the Lake Constance

The economic goals of the competition were:

- building up of a professional and powerful supply logistic for regional organic products
- New alliances and co-operations between regional organic farmers, trade, distribution and canteen kitchens
- Raising of regional value added tax

Measures and results

Seven regional districts (Germany, Switzerland, Austria) around the Lake Constance were involved in the preparation and realisation of the competition. To put the project in practise, a special working group was constituted. Nine governmental and non-governmental institutions worked together intensively in this working group: regional administrations, AGENDA 21 offices, economic administrations, health administrations, agricultural organisations and nature conservation organisations. It wasn't only an international but also an interdisciplinary co-operation. Regional work groups were constituted in some of the regional districts to implement the competition in their district.

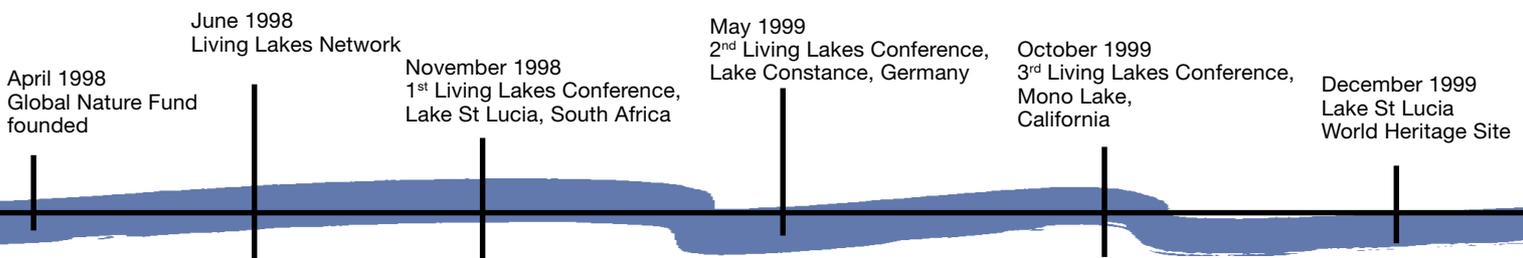
Interdisciplinary composition of the international working group

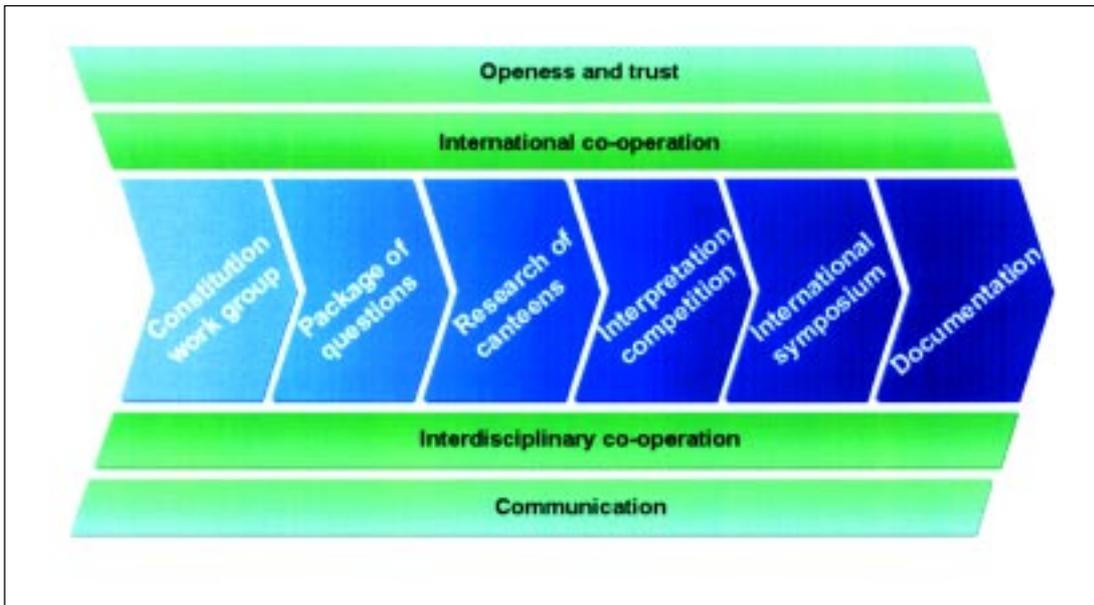
The working group developed a questionnaire for several topics:

- Quality and origin of food, preparation of food, nutrition
- Reduce of waste
- Save of energy and water
- Cleaning
- Rules of hygiene
- Need for information and advice

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Interdisciplinary composition of the international working group.





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Measures to realize the competition.

The working group put together all addresses of canteen kitchens in the districts and then sent the questionnaire to over 800 canteen kitchens around the lake. Nearly 250 questionnaires were sent back. After the interpretation of the replies, the working group organised an international conference in October 2002 for canteen kitchen chefs and personnel, organic farmers, trade/distribution businesses, politicians and administrations to present the winners and to promote regional organic food.

Measures to realise the competition

More than 200 persons took part in that conference that also had the character of a regional fair for organic products. Each participant of the conference got the final documentation of the competition with all the results.

Future perspectives

For the future the members of the Lake Constance working group are preparing several activities:

- Regional working groups will offer special training courses and consultations on topic of specific features of organic food.
- Competence centres will be built up in some regions around Lake Constance. Those centres should be the contact for canteen kitchen chefs for all questions concerning

organic food, should offer training courses and information material and should organise weeks of action in the canteens.

- The already existing regional infrastructure for the food supply should in future be used more for regional organic products and be optimised. Through the enlargement in diversity on the part of the wholesale trade, canteen kitchens will be able to order regional organic products with less problems in the future.
- Two members of the working group are regional partners of the nation-wide information campaign „Organic food in canteens and restaurants“.

To monitor the progress made by the competition, a new competition will be organised by the working group in 2003/2004.

Patrick Trötschler

Projektmanager, Bodensee-Stiftung, Deutschland

Etwa 3,5 Millionen Menschen leben in der Bodenseeregion. Die Kantinen in der Region haben ein hohes Potential regionale Ökoprodukte zu verkaufen, doch bis jetzt konnten nur wenige von dieser Möglichkeit überzeugt werden. Die Aufklärung über den positiven Ein-

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fluss auf die Natur und Qualität dieser Produkte ist sehr wichtig. Ein internationaler Wettbewerb „Umweltverträgliche Kantinenküchen am Bodensee“ wurde mit dem Ziel gestartet, die drei Kernaspekte der Nachhaltigkeit zu fördern: Umwelt (Entwicklung umweltfreundlicher Arbeitsmethoden in Kantinen, Reduktion des Transportaufkommens), Soziales (Information des Kantinenpersonals, Einführung einer Vorbildkantine, internationaler Wissenstransfer) und Wirtschaft (Bildung einer professionellen Versorgungslogistik für regionale Ökoprodukte, neue Verbindungen zwischen regionalen Biobauernhöfen, Handel und Kantinen, steuerliche Mehreinnahmen auf regionaler Ebene).

Eine Arbeitsgruppe entwickelte einen Fragebogen zu den Themen: Qualität und Herkunft der Lebensmittel, Zubereitung, Ernährung, Abfallvermeidung, Energie- und Wassereinsparung, Reinigung, Hygienevorschriften, Bedarf an Information und Beratung. Nach der Auswertung fand eine internationale Konferenz für Kantinenchefs und Personal, Biobauern, Handels- und Transportunternehmen, Politiker und Ämter statt, auf der der Gewinner des Wettbewerbes präsentiert wurde. Für 2003/2004 ist ein weiterer Wettbewerb geplant.

Joachim Kopf

Kopf Solardesign, Germany

Solar Ships - Possibilities for ecological tourism in consensus with the local Agenda 21

Local Agenda 21 chapter 18 demands the integrated planning and management of water resources in which long-term as well as short-term planning needs have to be considered. On the principle of sustainability, ecological, economic and social aspects are taken into account, for example the development of cities, the traffic system as well as leisure and recreational purposes, which means that one main aspect of the socio economic expansion planning has to be the prevention and lowering of water-connected risks.

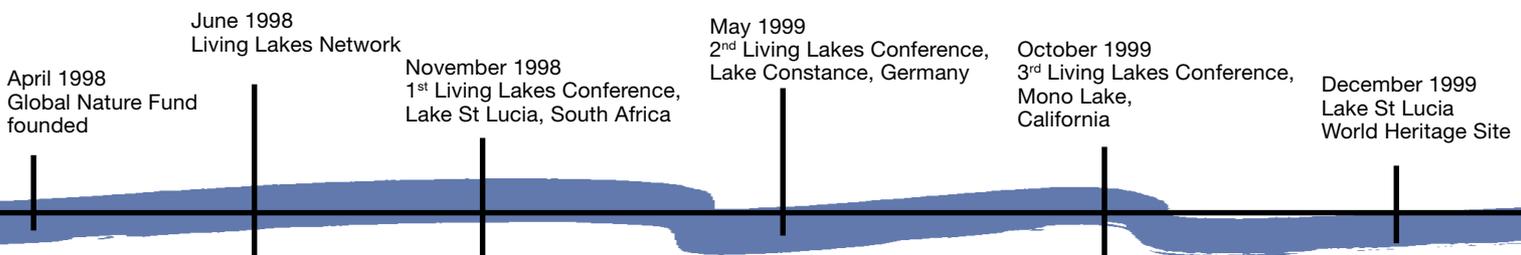
That's why an intact and clean environment and the use of less energy has to be one of the most elementary terms of one's quality of life as well as smart life philosophy. Thereby world's political behaviour will be influenced. The ecological awareness of mankind cannot be changed by the hortative finger or innumerable environmental laws. It has to be fun to live

unison with nature which can be excellently realised by the use of aesthetic and lasting products.

One contribution to the harmless use of stretch of waters for leisure and recreational purposes can represent the solar ships contained for more than 10 years on the market. Solar ships feature themselves through certain advantages like no emission, no use of fossil source of energy, great range and small scale wave forming, few maintenance, long life expectation, creditableness and small running costs. Solarships are offered at the moment in the range of 4 up to 150 persons and are, due to that, able to solve bigger transport problems as well. In Hamburg and Hanover ships with a capacity of 120 respectively 70 persons are constituted and cause great sensation because of their futuristic design.

Solar ships are the solution for sustainable tourism. Owing to the especially intensive naturalness and the innovative technique of solar ships, national parks rise to the position of worldwide magnets for high class tourism with an economic improvement of the entire region. These National parks conduce the protection and conservation of nature. Fields that are not yet affected by human civilization need to be kept in this undisturbed state. On the other hand it is desirable that tourists like to experience the naturally beauty of these fields. Many national parks cause by the use of normal ships the danger of chase away of animals due to noise, wash of the waves, waste gas in water and air, as well as the damage of shore and shore plants. Ships with combustion engines harm nature and cannot be attractive for tourists because of the noise and pollution. These market segments are one of the areas the Kopf Solar-design is working on, by developing special ships to be used in the touristic field. Examples are the solar house ship, the solar diving ship as well as a ship that is especially equipped with a glass bottom.

An outstanding example of the perfect conversion between tourism and water protection is the establishment of the worldwide unique solar ship network on Lake Constance. The first project solar ferry ship „lower lake“ was already implemented in summer 1998. The objective of the initiative was a ship connection



between Germany and Switzerland which was only operated by sun energy. On account of the outstanding resonance of the new environment ferry ship combination, since in fall 1999 another considerably bigger solar catamaran with a capacity of 50 persons and 25 bicycles is working. In addition to the attraction for tourism and the improvement in the regional public traffic network, the project has an overall innovation supporting effect and serves Europe-wide as an example of strong mobility evolution efficiently and ecologically oriented. The project is completed by the use of a number of small ships which reactivate different ferry lines and consequently cause incentive for tourism.

The success of this project is an excellent example of the collaboration between different institutions. Especially the German Environmental Aid, Lake Constance Foundation, Global Nature Fund, Ministry of Economics Baden-Württemberg as well as the involved communities, associations and authorities and of course economic partners like the „Allianz Environmental Foundation“ to name just few. For all of these involved institutions the success of the future pointing project played an important role.

Joachim Kopf

Kopf Solar design, Deutschland

Solarschiffe bieten Möglichkeiten für einen nachhaltigen Tourismus im Einklang mit der Lokalen Agenda 21. Sie sind emissionsfrei, brauchen keine fossilen Energieträger, bilden nur kleine Wellen, benötigen wenig In-

sular ships feature themselves through certain advantages like no emission, no use of fossil source of energy, great range and small scale wave forming and small running costs.



standhaltungsarbeiten, haben eine hohe Lebenserwartung, sind zuverlässig und verursachen geringe laufende Kosten. Es werden Solarboote für 4 bis zu 150 Personen angeboten; sie sind also auch in der Lage größere Transportprobleme zu lösen. Aufgrund ihrer innovativen Technik sind Solarschiffe für Nationalparke geeignet. Schiffe mit Verbrennungsmotoren hingegen produzieren Lärm und Verschmutzung. Die Firma Kopf Solar design entwickelt speziell für den Tourismus solare Hausboote und Schiffe, die mit einem Glasboden ausgestattet sind.

Ein sehr gutes Beispiel für die Verbindung von Tourismus und Wasserschutz ist das weltweit einzigartige Solarschiffnetzwerk am Bodensee. Der Erfolg dieses Projektes geht auf die gute Zusammenarbeit verschiedener Institutionen zurück, vor allem Deutsche Umwelthilfe, Bodensee-Stiftung, Global Nature Fund, Baden-Württembergisches Wirtschaftsministerium sowie beteiligte Gemeinden und Behörden.

Isabel Fezer

Mayor, City of Radolfzell and Chairwoman Tourism Lower Lake Union, Germany

Tourism Lower Lake Union (Tourismus Untersee e.V.), an Example of Sustainable Tourism at Lake Constance

The Lower Lake (Untersee) is one of the two western arms of Lake Constance. The character of its landscape is quite different compared with the other parts of the lake. The opposite lying shores are, at most, only 2 km apart (about one and a quarter miles). Areas of reed growth cover many of the lakeshore zones. The Isle of Reichenau and the peninsulas Hoeri and Mettnau structure the Lower Lake into shallow waters and deeper basins. Nature and landscape conservation areas cover a large part of this diversified region. Surrounding the Lower Lake are mostly small villages with 350 to 7,000 inhabitants. The biggest town is Radolfzell with a population of nearly 30,000. There is no significant industry in the region except in the Radolfzell area. Tourism is one of the main economical opportunities for the region.

Which possibilities are there to improve tourism in the Lower Lake region? Firstly a lot of disadvantages can be identified. There are no

Agenda 21:
Lake Constance
Germany, Austria
Switzerland

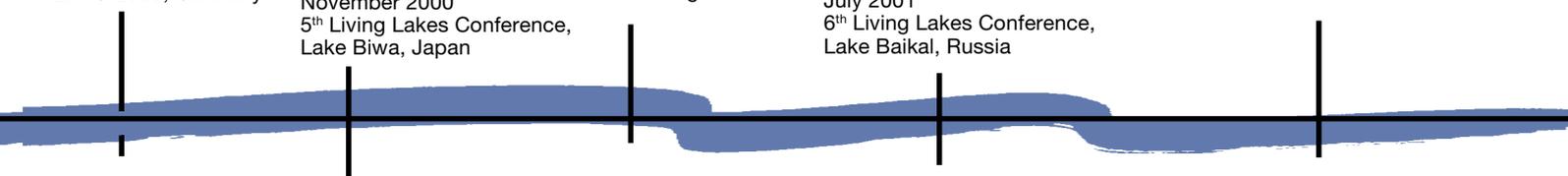
June 2000
4th Living Lakes Conference,
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tourism highlights to promote. The Lower Lake Region only has its water, nature, small villages with a rural infrastructure and the national border between Germany and Switzerland dividing it. Realizing these handicaps we made two decisions:

Firstly: we decided that tourists look exactly for these disadvantages. So, let us call them advantages and offer them in a professional way.

Secondly: the fact that each community around the Lower Lake working only for its own tourism is inefficient and should be changed. So, initially a working group was founded, which was later converted into a union. The result is the Tourism Lower Lake Union, which is made up of 14 German and Swiss communities.

These short words describe a long thorny way, which started in 1995. In the beginning experts in tourism and official representatives of the communities realized that close cooperation between all Lower Lake communities was urgently needed, particularly for two reasons: Firstly: tourists define the whole region as their holiday destination, not only the place where they stay overnight. Secondly: the coordination of tourist marketing and product activities bundles financial resources and makes them thereby cost effective.

We identified five fundamentals:

- In order to get a clear touristic profile there needs to be a common and coordinated appearance offered to the tourist market.
- There has to be a concentration on the unique selling points of the region. That means profiling by specializing on tourist products that are typical of the Lower Lake region.
- Sustainable tourism refers to the special possibilities which the region offers, in particular the wide range of mobility and culinary experiences.
- Cooperation and coordination do not mean promotion of single communities but a concentration on common targets which allow individual profiling by each local authority.
- Tourism has an important marketing function as advertisement for the economic location Lower Lake. Tourism promotes the attractiveness of the region, which is essential for enterprises wishing to set up or relocate business with high qualified employees.

The Tourism Lower Lake Union work has two main functions: development of products and marketing of the region.

We identified several touristic products which are both being unique selling points and each referring to all communities. Here are some examples:

„Lower Lake Culinary Delicacies“

More and more holiday guests as well as locals are pleased to discover the growing range of culinary specialties available from regional local organic sources. Among gastronomes awareness of the exceptional quality of local organic products and our shared responsibility for maintaining Lower Lakes landscape has been growing. The concept of this project bases on a rigid quality assurance system. Every gastronome who is willing to participate in this project has to commit himself to use natural products deriving from ecological agriculture (at least 8 %) and from regional agriculture (at least 50%). He has to declare the origin of his products and to name the producers (farmers, fisher etc.) in order to inform the guests.

Adventures Cycling

Bicycle tours in combination with „Lower Lake Delicacies“, „Spend the Night in a Barn“, shopping in-person directly at farms, petting zoos for children, tours of cheese-dairies and wine tasting can be combined. A unified sign system directs cyclists around the Lower Lake to the most scenic landscape points as well as to specialty restaurants. It is our goal to encourage contact between holiday guests and the local population - particularly farmers so as to present the region as a fully rounded experience.

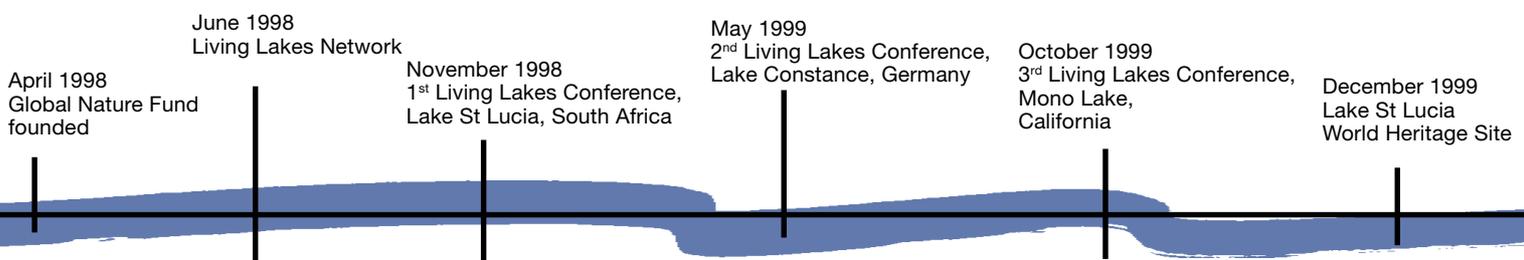
Water Wandering

Holiday guests may rent canoes at nine stations along the Lower Lake shoreline. They can drop the canoe off at another station and return to their starting position by a comprehensive network of public transport.

Garden Culture

Ten gardens in the Lower Lake region are opened for guests who are interested in gardening at various levels. There is a wide variety of gardens such as parks, herbal gardens, cloister gardens, manor-house gardens and special private gardens.

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Bird watching

The Lower Lake is one of the most important retreat areas for resting or hibernating water birds in Europe. We have developed a special map describing birds and places where they can be observed. Organized excursions are available and information boards facilitate bird watching for the individual.

The marketing of Tourism Lower Lake has focused on producing common catalogues, image brochures and special project descriptions. Tourism Lower Lake is represented at exhibitions and road shows.

The internal organization of the union consists of a board of directors from Germany and Switzerland, a CEO and a working group of tourist experts who cover the whole region. The Tourism Lower Lake Union is financed by the contributions of its members who are local authorities, hotel and restaurant industry and other providers.

The most important basis of the work of Tourism Lower Lake is a network of cooperation partners. None of the projects and events can be accomplished without the close cooperation between groups of experts in a specific field. We work together with neighbouring and regional tourism organizations particularly the International Lake Constance Tourism. We cooperate with environmental organizations such as the Lake Constance Foundation and others as well as with local, regional and state authorities. Furthermore, we have an excellent working relationship with hotels, restaurants, farmers, gardeners, boat renting agencies.

With regard to the methods of cooperation we prefer an open structured organisation in order to gain maximal benefit of know-how and contacts of our partners. Representatives of the Model Project Constance and the Lake Constance Foundation - both focus on environmental and agricultural issues - are regular members of the working group of Tourism Lower Lake. Having these functions they do not only work on particular projects but also influence the entrepreneurial orientation of the entire Tourism Lower Lake Union.

What results have been achieved since Tourism Lower Lake is existing and working on sustainable tourism? Unfortunately it is not

possible to state clear results. There are three reasons: Firstly: Changes and improvements relating to tourism base on multiple factors. None of them may be evaluated isolately. Secondly: It is very difficult to get reliable information about the motivation of guests to prefer sustainable tourism. Thirdly: It takes more than some years experience with certain projects to be able to identify a clear trend of development.

However, that Tourism Lower Lake has gone the right way in the direction of sustainable tourist development has been demonstrated by the fact that the entire Tourism Lower Lake concept received a special award in the field of sustainability in the contest of the Lake Constance Agenda 21 in November 2001.

Isabel Fezer

Bürgermeisterin, Stadt Radolfzell und Vorsitzende Tourismus Untersee e.V., Deutschland

Der Untersee ist einer der beiden westlichen Arme des Bodensees. Natur- und Landschaftsschutzgebiete decken einen großen Teil dieser abwechslungsreichen Region ab. In der Umgebung des Untersees findet man zu meist kleine Dörfer mit 350 bis 7.000 Einwohnern. Tourismus bietet große wirtschaftliche Möglichkeiten.

Um den Tourismus in der Unterseeregion zu verbessern, wurden zuerst Schwachstellen identifiziert: keine touristischen Highlights, nur das Wasser, die Natur, kleine Dörfer mit ländlicher Infrastruktur und die Grenze zwischen Deutschland und der Schweiz. Man stellte fest, dass diese Faktoren keine Nach- sondern Vorteile sind, da Touristen genau darauf achten. Eine Arbeitsgruppe, die später in einen Verein umgewandelt wurde, aus 14 deutschen und schweizerischen Gemeinden wurde gegründet, um gemeinsam für den Tourismus zu werben. Die Arbeit des Tourismus Untersee e.V. hat zwei Schwerpunkte: Produktentwicklung und Marketing der Region. Es wurden viele touristische Produkte ermittelt, die für die Region einzigartig sind und alle Gemeinden betreffen: Kulinarische Delikatessen des Untersees, Abenteuer-Radtouren, Wasserwanderungen, Kulturgarten, Vogelbeobachtungen. Der Tourismus Untersee e.V. gibt Kataloge, Bildbroschüren und spezielle Projektbeschreibungen heraus. Der Verein arbeitet mit benachbarten und regionalen Tourismusverbänden sowie mit Naturschutzorganisationen wie der Bodensee-Stiftung zusammen.

Agenda 21: Lake Constance Germany, Austria, Switzerland

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Living Lakes: Sustainable Management of Wetlands and Shallow Lakes - a project funded under the EU LIFE III Programme

Presented by Stefan Hörmann, Project Manager, Global Nature Fund, and Georgios Kritikos, Director, AENAK - Development Agency of the Prefecture of Kavala, and Hans Jerrentrup, EPO, Greece

Global Nature Fund has got a grant of 520.000 Euro from the EU to carry out a project of rehabilitation of wetlands. The project areas are the lagoons La Nava and Boada in Spain, and the Nestos Lakes and Lagoons in north-eastern Greece. Both are partner regions of the Living Lakes network. The project areas are especially important for the preservation of the biodiversity in Europe as they are situated in arid zones. They are important wintering places for migratory birds such as mallards and greylag geese, and a stop-over point for several birds like i.e. sandpipers. The Nestos lakes and lagoons are considered by the European Commission to be one of the 10 most important wetland areas in Europe.

The overall aim of this project is to demonstrate how wetlands can generally be restored and managed wisely in ways that are compatible with sustainable development. The aim is to develop and implement management plans for the wetlands, with the intensive involvement of the local communities benefiting the social and economic needs of the local population. Components of the project are the establishment of buffer zones and green filters around the lakes to stop nutrients influx, preparation of guidelines for the treatment of sewage effluent and visitor management. A plan for agricultural extensification and the establishment of a Good Practice Guideline so that other wetlands can benefit from the experience gained during the project are further project goals. Work camps for youth, as well as training courses for wetland managers will help to spread the expertise developed.

Project partner in La Nava are the Fundación Global Nature España (Responsible for the local coordination and implementation of the project in Spain) and the communities of Fuentes de Nava and Boada de Campos. At Nestos the

Greek Living Lakes partner EPO - Society for Protection of Nature and Ecodevelopment - coordinates and implements the demonstration project. Partner of EPO is the regional development agency AENAK.

The Broads Authority in Great Britain and the Lake Constance Foundation in Germany will provide expert knowledge gained from their own experience. The Broads Authority in Great Britain has considerable know-how in the fields of visitor management, the restoration and bio-manipulation of shallow lakes while the Lake Constance Foundation has a lot of experience in extensive farming and sewage treatment in constructed wetlands.

For further information: www.livingwetlands.org and about EU LIFE Programme: <http://europa.eu.int/comm/life/home.htm>.

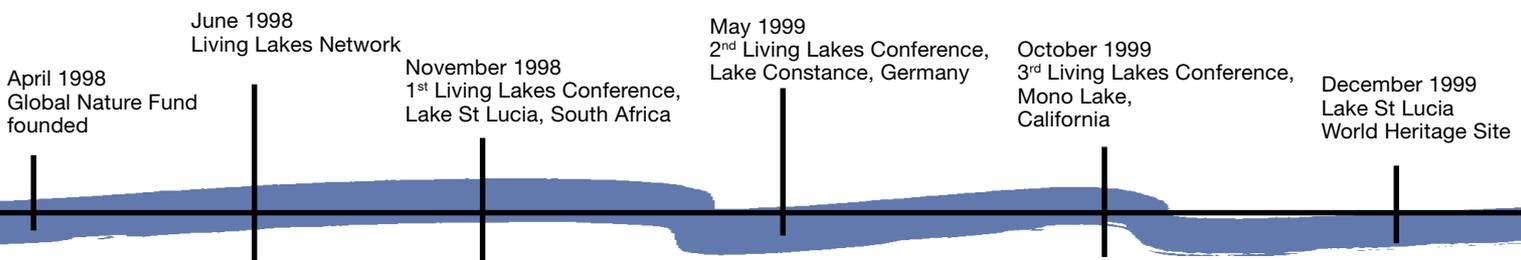
Living Lakes: Nachhaltiges Management von Feuchtgebieten und Flachwasserseen

Vortrag zur Posterpräsentation von Stefan Hörmann, Projektmanager GNF, Georgios Kritikos, Direktor der Regionalentwicklungsagentur AENAK, und Hans Jerrentrup, EPO, Griechenland

Der Global Nature Fund führt mit finanzieller Unterstützung der EU ein Projekt zur Renaturierung von Feuchtgebieten in Spanien und Griechenland durch. Die Projektgebiete sind die Lagunen La Nava und Boada in Spanien und die Nestos Seen in Nordost-Griechenland. La Nava und Boada spielen für die Erhaltung einer vielfältigen Flora und Fauna in der Region und als Überwinterungsgebiete für Zugvögel eine wichtige Rolle. Die Nestos Seen in Griechenland wurden von der Europäischen Kommission zu den zehn wichtigsten Feuchtgebieten Europas erklärt.

Ziel des Projektes ist es, mit einem Feuchtgebietsmanagement den Naturschutzwert der Region zu verbessern und soziale und ökonomische Bedürfnisse der Bevölkerung zu berücksichtigen. Während der Projektdauer von drei Jahren wird in Zusammenarbeit mit den Partnergemeinden ein Managementplan für die nachhaltige Entwicklung der Region erarbeitet. Die Einrichtung von Pufferzonen um die Seen soll helfen, Nährstoffeinträge und Abwasserbelastungen zu reduzieren. Außerdem beinhalten die Pläne Empfehlungen für eine optimierte Abwasserbehandlung, ein Besuchermanagementsystem und ein Konzept für die Entwicklung einer nachhaltigen, extensiven Landwirtschaft. Die Übertragbarkeit der Maßnahmen auf andere Feuchtgebiete in der EU steht im Vordergrund. Workcamps für Jugendliche und Trainingskurse für Betreuer von Feucht- und Schutzgebieten sind hierfür ein wichtiges Instrument.

Poster
Session



Twelve Principles of Sustainable Development in Lake Regions

Living Lakes Contribution to the World Summit on Sustainable Development, Johannesburg 2002

„To save one lake is to save a whole world“ (Credo Mutwa, South Africa).

Introduction

More and more countries have been developing strategies for sustainable development since the Earth Summit in Rio de Janeiro in 1992. Much experience has been gained in the past ten years on how to define clear and coherent sustainable development strategies according to the principles of Agenda 21. The Living Lakes Network has used this invaluable experience to address the reality of the urgent economic, environmental, and social problems that are encountered by all members of the network. Out of each member's unique experience, it is clear that the essential processes of raising awareness, stakeholder dialogue, participation, and networking are at the heart of the implementation of Agenda 21. Furthermore, human intervention in the fragile ecosystems of lake environments should above all be conducted according to the principles of precaution, preservation, and restoration.

In order to achieve this, the Living Lakes Network has developed a practical and successful process of partnership between governments, businesses, and other civil society members. These partnerships aim to develop a unified coalition of committed stakeholders who wish to implement sustainable development in lake areas throughout the world. Such development should be based upon the clear, integrated understanding of the relationship between human activity and natural eco-systems. With this understanding, the economic, environmental, and social processes that impact upon these eco-systems, will require coherent governance and legal regulation.

To this end the Living Lakes Network has used the twelve general rules of sustainable development as expressed in the European Union's DG Environment publication, the Law of Sustainable Development. These rules serve to develop scientific understanding of the process of sustainable development of lakes, to establish real transparency within stakeholder partnerships, and to provide technical and legal guidance for the practical implementation of Agenda 21.

The Living Lakes Network recognizes that the successful implementation of Agenda 21 can not be done without making human rights paramount; the eradication of poverty; addressing the issue of consumption and ensuring corporate and governmental social accountability.

In the following statement we present how these twelve rules could be adapted towards a sustainable use of lakes and wetlands throughout the world and could be adapted also to all other ecosystems.

What do these 12 principles mean for lakes?

The first principle of public environmental order establishes the obligatory nature of this control system aimed at the general good not only of the present generation but of those to come: sustainable development should not be abandoned to market forces but must be a responsibility of the state.

Lakes and their key elements (water resources including rivers, wetlands and catchment areas, habitat for fauna and flora, ecosystem necessary to maintain the hydrological balance) are public goods which need to be preserved as a vital base of life for present and future generations. Therefore a legal framework and control of its implementation is fundamental. Clearly this is the responsibility of government at all levels - local, regional, national and international. Sustainable development can only be achieved in close cooperation with civil society and private sector. Initiatives like Agenda 21-processes which are aimed to promote the co-operation between civil society, private sector and authorities should be encouraged and supported by public authorities.

Principles of Sustainable Development

Principles of Sustainable Development

The **second principle of sustainability requires all public policies to be harmonised and prohibits any further reduction or degradation of natural, cultural and social capital, because even what has been left after ruthless development may well not be enough for survival.**

More than 60 % of lakes and wetlands in Europe have been destroyed during the past fifty years and all Living Lakes are suffering a degradation of natural, cultural and social capital. Solutions had been researched and developed for many of the problems being faced by wetlands and lakes. There are good examples where degradation has been halted and reversed through practical restoration programmes. An example is the restoration of La Nava Lake in Spain which totally disappeared over 40 years ago. The exchange of experience and the promotion of positive initiatives is one of the most important tasks of the Living Lakes Network. The policy frame work within which restoration programmes are currently being developed is inadequate and lacking integration. Policies at various government levels tend to conflict with sustainable development principles. The principles of sustainable development need to be integrated into all policies.

The third principle demands an understanding of the carrying capacity both of man-made systems and of ecosystems, to prevent their overexploitation.

There are too many examples of lakes and wetlands which have been seriously degraded through a lack of understanding or concern for their carrying capacity. This is only possible through long-term research and monitoring of key elements within each ecosystem. Too much water abstraction over intensive use for pesticides and nutrients for agriculture in the catchment area, fishing and hunting on unsustainable scale, over-development and urbanisation of lake shore lines and excess use for tourism and leisure activities. All lakes and wetlands require the preparation of management plans which include the catchment area. Such plans should have an open participatory process with clear criteria set for the development and the monitoring of the lake ecosystem to ensure that the carrying capacity is not exceeded.

Lake Fúquene, Colombia, is a successful example of regional cooperation. The governmental authorities and NGOs have joined efforts to establish a Scientific Advisory Body with the mission of providing guidance on environmental management, focusing activities to understand the carrying capacity of the lake to determine water uses for cattle and fishing at sustainable levels.

The dominant use of Laguna de Bay in the Philippines is for fishery. A zoning and management plan (ZOMAP) of the lake was formulated which defines specific areas for aquaculture in fish pen and fish cage and for open water fishing. From an original allocated area of 21,000 hectares, it was reduced to 15,000 hectares, based on the availability of natural food in the lake to sustain fishery.

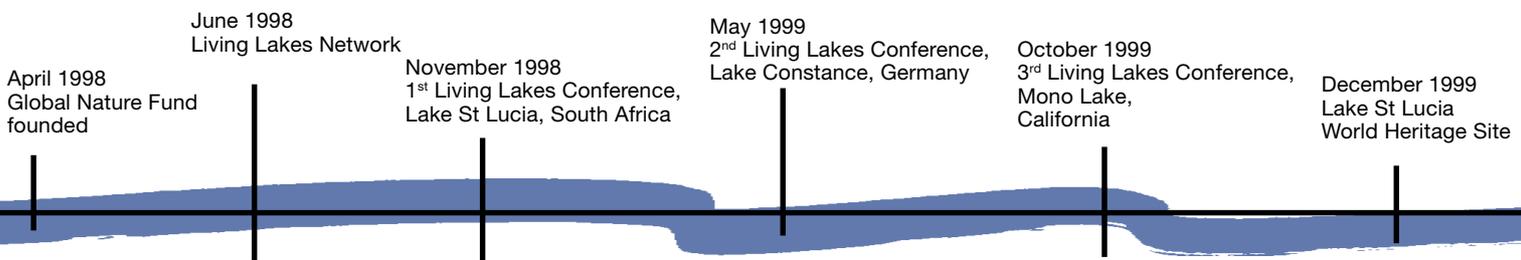
The fourth principle requires the reversal of past mistakes where this is still possible, that is the restoration of disturbed ecosystems so that any reduction of natural capital can be averted.

Excellent examples exist within the Living Lakes Network where degradation has been halted and reversed through pioneering restoration programmes. The Broads in the United Kingdom, a case example of a network of shallow lakes which were close to total eclipse through severe eutrophication. Now, through a science-led restoration programme they are progressively returning to a healthy and balanced ecosystem. Mono Lake in California (USA) has shown a dramatic return to necessary water levels from its extreme depletion.

Laguna de Bay in the Philippines, through the partnerships forged by the Laguna Lake Development Authority with the different stakeholders including industries such as the global partner of GNF, Unilever, has gained significant success in the implementation of a sustainable lake management program geared towards the improvement of the water quality of the tributary rivers and the lake.

The fifth principle enjoins the protection of biodiversity in order to preserve the stability (equilibrium) of ecosystems.

Lakes and wetlands are ecosystems with a rich and complex biodiversity. Very often they



represent the highest concentration of biological diversity - very often with a high number of endemic species - within the climate zone where they are located. Unfortunately almost all Living Lakes have lost a high amount of biodiversity due to degradation of their ecosystems.

Lake Biwa in Japan hosts more than 490 species of plants and 595 species of animals. Recent studies of the lake bottom suggest that many more species remain to be discovered. About 50 species and subspecies are found nowhere else. These include such animals as the freshwater pearl mussel (*Hyrloopsis schlegeri*). Other species have been intentionally or unintentionally introduced into the lake, for instance, salmon, North American bluegills (*Lepomis macrochilus*) and largemouth bass (*Micropterus salmoides*), which have come to dominate the fish community since the 1980s. These top-level predators have profoundly altered the ecosystem of the lake. Restoration programmes to re-establish biodiversity are urgently needed as well as activities to prevent the loss of species and their habitat. Biological diversity of a lake and its catchment is a living indicator for the sustainable economic development of a region.

The sixth principle, that of common natural heritage, strives to secure for the sake of all the vital nucleus of natural capital, i.e. untamed nature where it exists and the ultimate reserve of life.

Fortunately in the Living Lakes Partnership reserves of natural capital are present in such special places as Lake Baikal in Russia, the deepest and largest lake in the world with 20 % of the planets fresh water resources and 2,600 species of fauna and flora, 60 % of them endemic animals.

The Pantanal, the world's largest wetland covering a region of 140,000 square kilometres and habitat for a large variety of almost 1,000 species of animals and plants - the new world's greatest concentration of large animals such as Giant River Otter, Tapir and Jaguar. The Mahakam Lakes in Indonesia, home of the Irrawaddy Dolphin who lives in fresh, brackish and salty water which is threatened by extinction. 12 species of heron, 2 stork and 23 wader species live in the wetlands. Purple Heron,

Grey-headed Fishing-Eagle, and many more nest there. Also Lake Fúquene in Colombia, situated amidst a biologically impoverished human landscape, represents a local hotspot of freshwater biodiversity. 248 species of flora and fauna have been identified - although many are yet to be registered. The Columbia Wetlands, 180 kilometres of natural wetlands, lakes and rivers are home for blue herons, bald eagle and osprey, and provide critical nesting and resting habitat for migrating birds, with single day counts of more than 15,000 ducks and 1,000 tundra swans, elk, deer, moose, wolves, black and grizzly bears, coyotes, mink, river otters, and beavers are among the larger mammals that call the Columbia Wetlands home. It is vital that these surviving reserves of natural capital are not compromised. It is a critical objective of the Living Lakes Partnership to assist in guaranteeing the protection of these globally important lakes and wetlands and its wilderness.

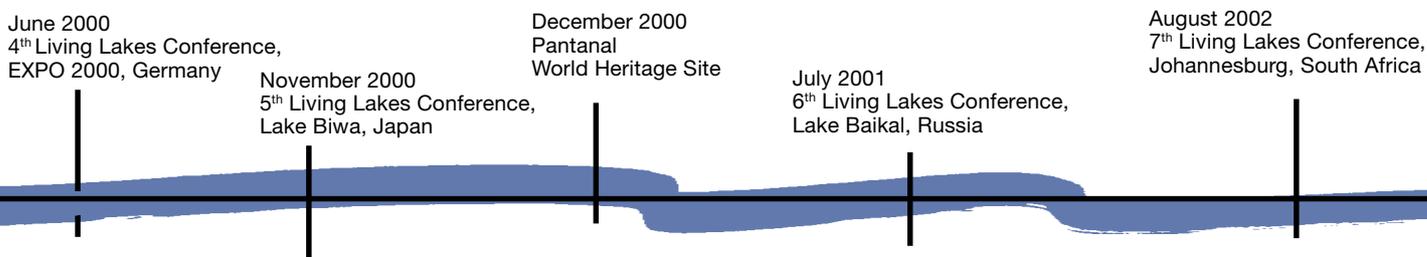
The seventh principle demands restrained development in fragile ecosystems.

In the Living Lakes Network there are ranges and degrees of sensitivity which should be respected. Also it should be recognised that in certain fragile ecosystems there is simply no place for development. The range of sensitivity sets the limits and appropriateness of any development in this area. For example, Mono Lake's islands are closed to the public during nesting season, from April 1st to August 1st. The Mono Basin National Forest Scenic Area restricts development near the lake.

The eighth principle, that of spatial planning, calls for an overall planning balance between man-made systems and ecosystems, so as to control and maintain their stability and to improve the quality of the former.

Lake Biwa and Lake Constance are examples of lake environments where this juxtaposition of man-made and natural ecosystems is critical. In such situations an overall planning of balance is widely important. Spatial planning not only for the lake area but the entire catchment area is fundamental to guarantee the balance between ecosystems and water resources and the different interests: agriculture and forestry, urbanisation, infrastructures, tourism and industry. Spatial planning needs concrete

Principles of Sustainable Development



Principles of Sustainable Development

ecological, economical and social aims and a continuing independent monitoring with valid indicators in order to control the planning outcomes. This means that stakeholders assume the obligation to undertake corrective measures if aims are not reached or the ecosystems are declining. Examples may be also observed in the Milicz Ponds, where NGOs help to create a regional development strategy for the whole catchment.

The ninth principle, that of cultural heritage, is concerned with the stable continuation of man-made systems and the qualitative (spiritual) character of development.

The Living Lakes Network represents not only outstanding examples of natural heritage; each Lake Partner has a special and distinctive cultural heritage which forms part of the global mosaic of natural and cultural values. Sustainable development of lakes comprises the promotion, conservation and advancement of culture and spiritual relation between man and lake.

The tenth principle, that of sustainable urban environment, strives to reverse the advancing decay of modern cities, and to restore quality of life therein.

Human evolution took place at lake shores and important cities and economic centres developed on wetlands and lakes because of their natural resources. Intact lakes and wetlands are of essential importance for the quality of life of urban population. Lake environments could be models of sustainability which assist in the qualitative restoration of urban environments. Not only the sustainable development of the cities located at the lake shores is of vital importance but the sustainable development of cities and villages in the catchment area, which need the lake as drinking water reservoir and recreational area. Even 350 miles far away from the lake, low flush toilets distributed in Los Angeles are contributing enormously to restore the ecological balance of Mono Lake.

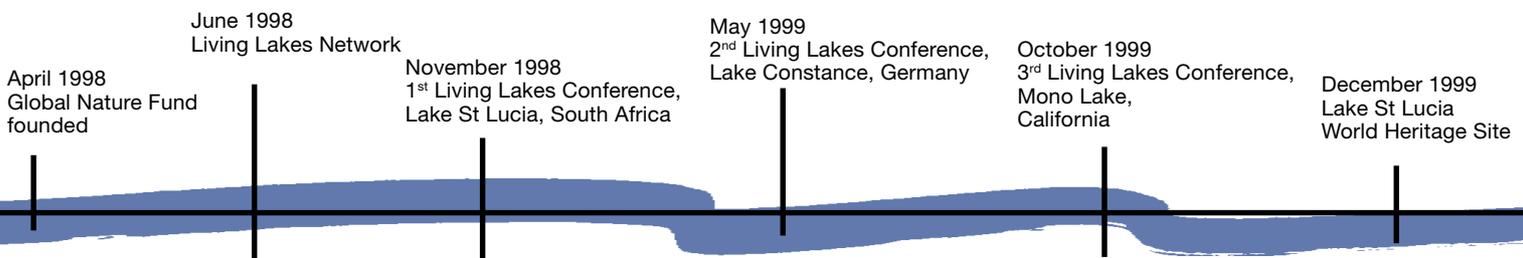
The eleventh principle, that of the aesthetic value of nature, also serves the qualitative development and satisfaction of man's aesthetic needs.

The Living Lakes Network can demonstrate the harmony of landscape and waterscape through an ecosystem in balance. There are aesthetic values in this condition which may be appreciated, as well as the inherent spiritual values of nature for human kind. The view of an intact lake gives us humans peace and the feeling that there is a basis of life in the future. If a lake loses its state of equilibrium, our feeling for the aesthetic is immediately invoked and harmed: the dry lake-bed of Lake Aral, now ravaged by sand and salt storms; evil smelling, pools full of rubbish, that used to be small lakes and wetland areas; the many dead lakes which now no longer contain oxygen to support fish and other living organisms. All lakes and wetlands possess a high aesthetic value - even though it is not measurable with common indicator systems - and provide an important contribution for the qualitative development of a region.

The twelfth principle requires the development of sound systems and environmental awareness in people as a real guarantee for long-term sustainable development.

Globally there is not enough environmental awareness integrating lake issues. Therefore environmental awareness raising is one of the most important aims and tasks of the Living Lakes Network and every single partner organisation. There are excellent examples of environment awareness programmes which are being developed by Living Lakes partners. These examples include imaginative and innovative activities with minimum resources.

At the Columbia River Wetlands in Canada the Living Lakes partner East Kootenay Environmental Society (EKES) offers a variety of awareness activities such as the so called Magic Basin Field Trips which is based on the popular Harry Potter novels targeting at students grades four through seven and making learning about the environment fun by mixing magic with fact. Field trips take students outdoors, with the help of well-known local naturalists, to discover functioning natural ecosystems. Students learn the lessons of herbology, discovering plants, care of wild creatures, illustrations of interconnectedness, defence against the disturbance forces and even water potion and balancing spells. The hope is that from awareness youth



will come to appreciate their rich natural heritage and help care for the ecosystems they understand.

Towards a sustainable use of lakes and wetlands, we will also need a sustainable system for us to carry out and continue any relevant activities. To achieve this, the essential element is to secure the involvement of all stakeholders, particularly local people, in all decision making processes from the beginning as well as all implementation processes. At Japan's Lake Biwa the prefectural government has supported the involvement of citizens in learning and protecting the lake. In 1995, 1,600 citizens conducted biological surveys in 36 rivers. Since 1984, about 20,000 students annually have spent one night on a prefectural boat learning about the lake and how to study it. Residents also may attend environmental classes on land or on another vessel original built for monitoring the lake. The Lake Biwa Museum is one of the best examples worldwide of successful realisation of an educational concept. More than 3 million people annually visit the museum.

At Mono Lake, in addition to the education programs for visitors, the Mono Lake Committee brings children and community groups from cities to Mono Lake as part of our Outdoor Experiences Program. Groups from L.A. see where their water and power come from, learn about Mono Lake, and because they gain respect and understanding for it, want to see it protected.

Conclusive statement

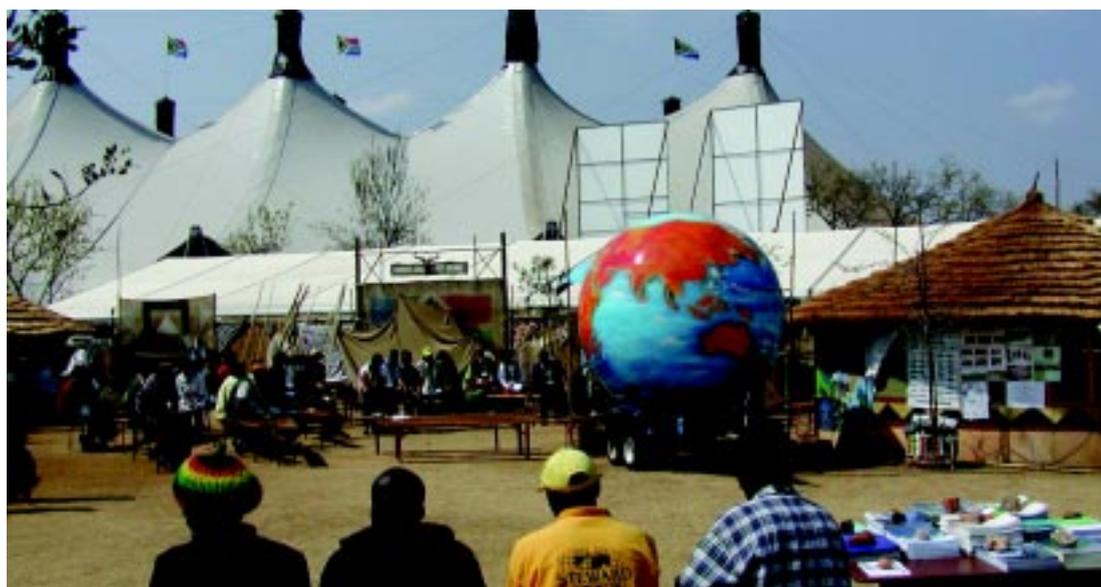
After 10 years of conflict over definitions and many great promises to promote sustainable development, the Living Lakes Partners now hope that the often quoted and sorely misused term 'Sustainable Development' will finally be filled with tangible practical ideas and activities during the World Summit on Sustainable Development.

It is the obligation of governments to set up rules and laws to guarantee sustainable development - in general and especially in the lake and wetland areas. „Principles of Sustainable Development“ should be the basis for all national politics. The draft elaborated by Michael Decleris is specifically focused on the situation of the European Community, but it provides an excellent base to develop the legal framework for sustainability in all countries - industrialized or under development.

We recommend all signatory countries of the Rio Conference and all participants at the World Summit 2002 in Johannesburg, to press for the implementation of „Principles of Sustainable Development“ as a basis for the protection of all lake ecosystems in the world and with that the basis for life on earth.

Principles of Sustainable Development

Ubuntu-Village - the official best practice exhibition at the World Summit in Johannesburg.



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Appeal to protect Lake Vostok

GNF Appeal to UNEP (presented to Executive Director Prof. Klaus Töpfer at the 7th Living Lakes Conference)

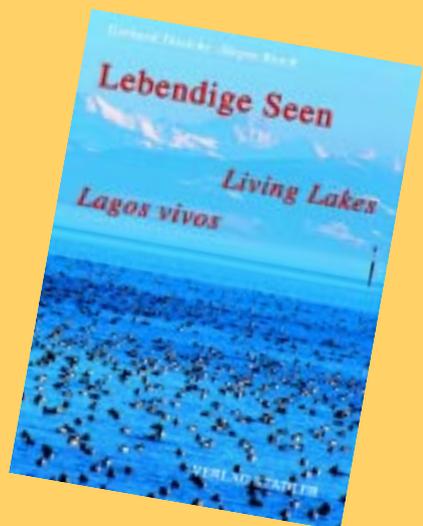
Lake Vostok - Honorary Member of Living Lakes

Lake Vostok

Almost 4 km beneath the East-Antarctic ice sheet, Lake Vostok, a vast freshwater lake was discovered in 1996. Lake Vostok is one of the oldest, and most pristine lakes in the world. It has not been interfered with by humans yet.

Currently new drilling technologies are developed, first to be tested on some of the smaller lakes under the huge ice sheet. Lake Vostok is a long-term target for the exploration through sampling and in situ experiments. An ice core was drilled by a team of U.S., Russian, and French scientists at Russia's Vostok Station on the lake's western waterside, but drilling was stopped about 120 m above the estimated surface of the water to avoid contamination of the lake. GNF calls for international protection and a ban on all drilling activities which could lead to contamination of Lake Vostok.

GNF is deeply concerned that the interest of many scientist to drill into Lake Vostok may endanger the lake's ancient ecosystem. The accomplishment of this intension could most definitely cause a major and lasting impact on the pristine waters of Lake Vostok. We support the conclusion of the conference on the issue held in Cambridge, England in 1999 and agree on an internationally coordinated, interdisciplinary and environmentally-safe approach to explore this unique ecosystem. Non-contaminating technologies and a minimum of disturbance have to be fundamental considerations in any investigations. Environmental impact assessment and risk management strategies should be preliminary stages of the research process.



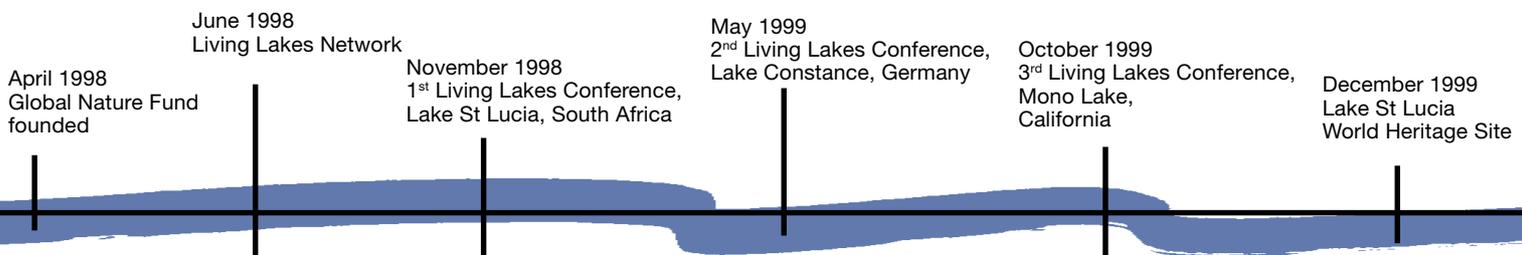
**Living Lakes
Lebendige Seen
Lagos Vivos**

Lakes are indispensable for fishing, swimming, boating but also extremely important as habitat for hippos, flamingos, fish eagles and as stopover for migratory birds - they have to be preserved. This is the vision and purpose of the Living Lakes book by Professor Dr. Gerhard Thielcke and Jürgen Resch.

Fantastic pictures illustrate the breathtaking beauty of the Living Lakes member lakes and the wonderful flora and fauna of these regions. Text and photos document the problems lakes and their tributaries are facing but also how it is possible to live in harmony with nature.

"Living Lakes" by Gerhard Thielcke and Jürgen Resch is published by the printing house Stadler, Constance, 192 pages. The book costs € 26,80 plus postage. It can be ordered by contacting:

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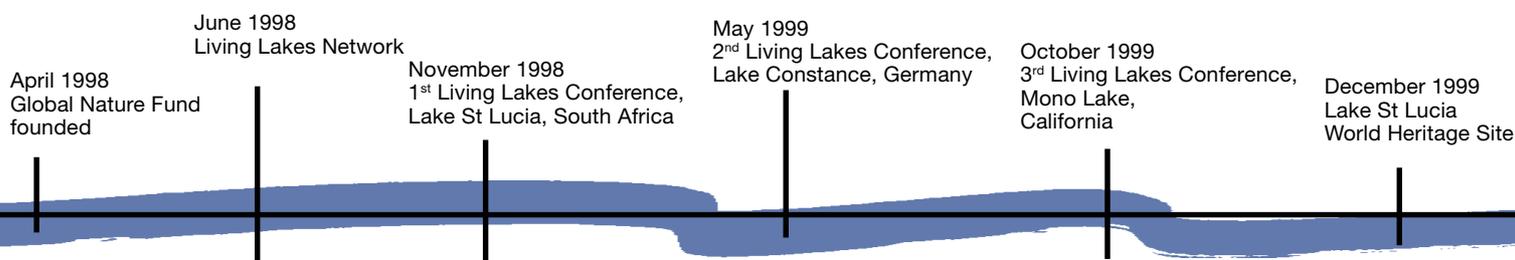
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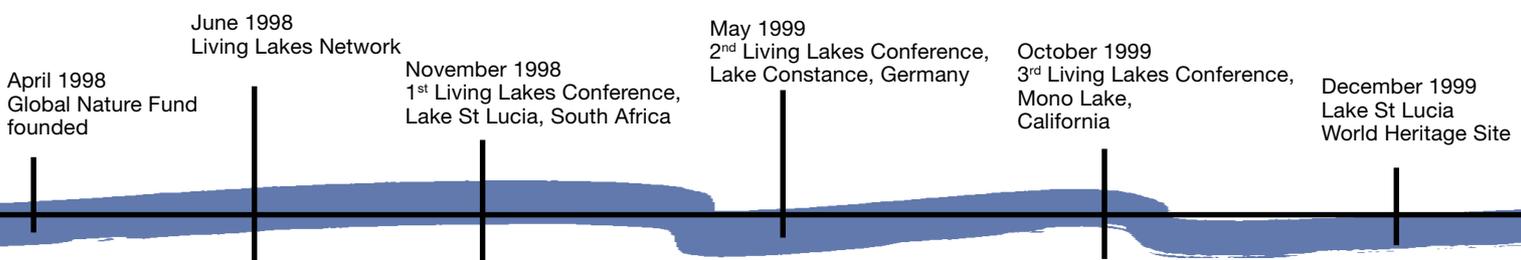
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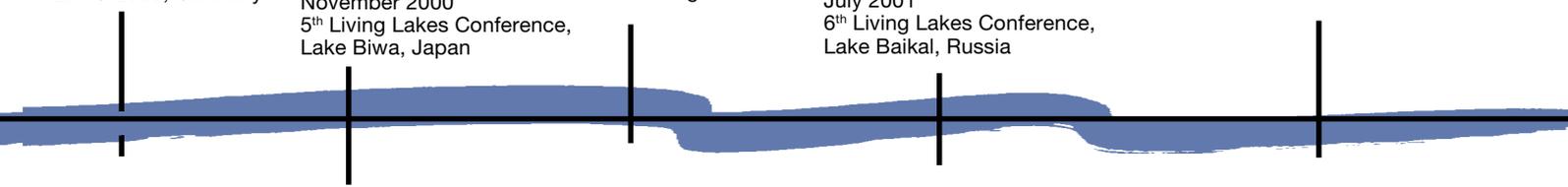
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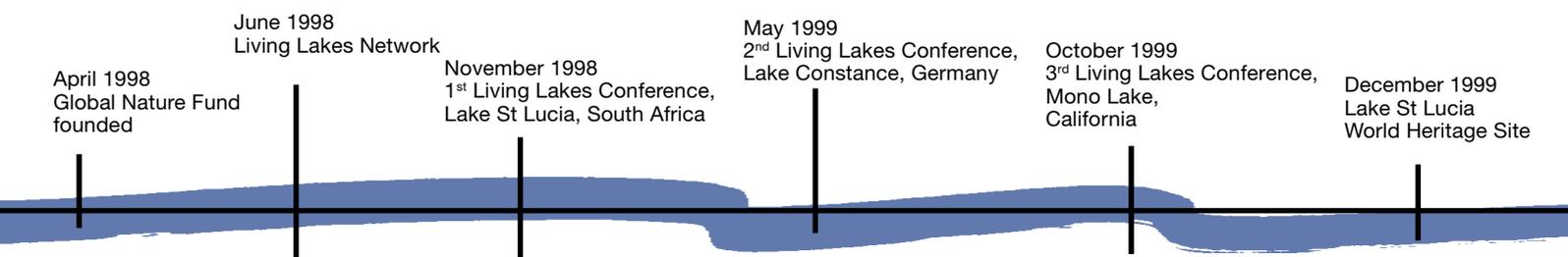
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