

NEWSLETTER

International Lake Environment Committee
=Promoting Sustainable Lake Management=

This Newsletter is also available in Japanese.

A Call for Session Topics and Chairs for the 10th World Lakes Conference

Planning for the 10th World Lakes Conference is well under way. The conference will be held on the shores of Lake Michigan at the Lincoln Park campus of DePaul University in Chicago, USA on 22-26 June 2003. ILEC will co-host the conference with the International Association for Great Lakes Research (IAGLR). The theme will be "Global Threats to Large Lakes: Managing in an Environment of Instability and Unpredictability". Additional information on the conference, including a conference flyer in PDF form, can be found on IAGLR's homepage at www.iaglr.org



The conference will be somewhat of a homecoming for ILEC: the 2nd World Lake Conference was also held at Lake Michigan in 1986. That conference focused on toxic contamination of large lakes; therefore, we expect to take this opportunity to have a special session that looks at the progress made since 1986 on this timely topic. Overall, the conference

will have approximately 56 scientific sessions and two plenary sessions featuring keynote speakers.

We expect the theme of "Global Threats to Large Lakes" to draw many participants. In the last few years, there has been a growing realization that "every lake is a global lake" because an effective management plan for a given lake cannot end at the watershed. Whether it is climate change, increased UVB irradiance, exotic species invasions, acid precipitation, etc., we are constantly reminded that there are numerous

threats to the health of lakes that originate outside respective catchments. This realization is one of the major thrusts behind the development of the World Lake Vision discussed in this and previous newsletters.

Currently, ILEC is looking for suggestions for session topics as well as nominations for session chairs. The conference planning committee intends to identify session topics and chairs by 31 August 2002 so if you have any suggestions and/or nominations, please send them to ILEC as soon as possible. Our address for this and any other conference-related issues is chicago2003@ilec.or.jp

We expect abstracts for papers to be due by 15 December 2002. Submission guidelines as well as registration information will be made available shortly at www.iaglr.org and on the ILEC homepage at www.ilec.or.jp We look forward to your suggestions over the coming months as well as to seeing you in Chicago in 2003!

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The 3rd World Water Forum (WWF3) & The World Lake Vision (WLV)

1. The purpose and history of 'The World Water Forum'

(1) Purpose

The purpose of the World Water Forum proposed by the WWC (The World Water Council) is to support the deepening of discussions towards the solution of international water issues in the 21st century and to bring their importance to the world's attention with all water resources stakeholders, such as NGOs and citizens and not just experts or professionals, from all water-related areas.

(2) History

The 1st World Water Forum

The 1st World Water Forum was held in Marrakech, Morocco in March 1997 with about 500 participants from 63 countries. At the Forum, the 'Declaration of the Marrakech' was adopted and it was decided then to establish a 'The World Water Vision'.

The 2nd World Water Forum

The 2nd World Water Forum was held in The Hague, Holland in 2000 with approximately 5,700 participants from 156 countries. 'The World Water Vision' was presented at this Forum and a 'Framework for Action' was proposed by the Global Water Partnership (GWP) to achieve 'The World Water Vision'.

The 3rd World Water Forum

The 3rd World Water Forum will be held over 8 days from 16th to 23rd March, 2003 in Kyoto, Osaka and Shiga.

The ministerial conference will be held in Kyoto, the main venue of the Forum. In addition to Kyoto, there will be a Shiga Day and Osaka Day and various programs relevant to each region will be organised. During the Forum, 'The Water Fair/Festival', consisting of a series of water-related events, will take place at the three venues of Kyoto, Osaka and Shiga.

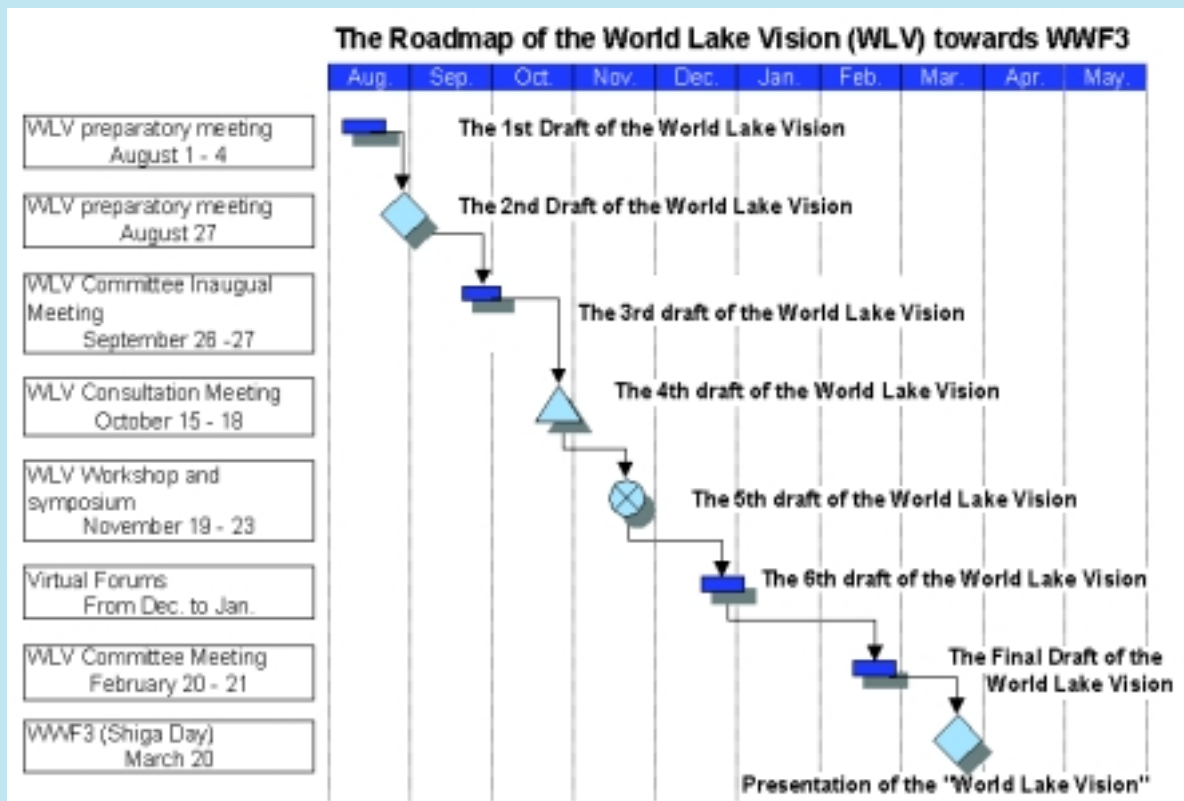
Furthermore, the outcomes of the Forum will be compiled as 'The World Water Action Plan', 'The Ministerial Declaration' and 'The Report of Sessions'.

2. Joint Programs by ILEC, Shiga Pref. and UNEP-IETC for WWF3

ILEC will be involved in the following programs jointly with Shiga Pref. and UNEP-IETC for Shiga Day on 20th March, 2003.

3. Preparation and presentation of the 'World Lake Vision' (WLV)

To settle fresh water resources problems from the point of view of lakes and to promote further efforts to conserve world lakes which will not be covered sufficiently by the 'World Water Action Report' (due to be compiled as one of the outcomes in WWF3), we have decided to establish a 'World Lake Vision' (tentative name) with Shiga Prefecture and UNEP-IETC collectively and to present it on Shiga Day. We hope to have active discussions, promoting the preservation of lakes and the use of the lakes.



New Faces at ILEC

Genjiro Furukawa, Secretary General

Mr. Furukawa worked in the Water Administration Division of the Shiga Prefectural Government for 12 years where he did work related to Lake Biwa. With ILEC's focus on research and preservation of lakes around the World, he hopes to both use his experience and also gain a broader perspective on a wide variety of lake related issues.

Katsunori Takagi, Chief of Support & Training and Research Division

Mr. Takagi has been seconded to ILEC from the Kansai Regional Bureau of Water Resources Development Public Corporation (WRDE). He says he is very much looking forward to adding his efforts to further the development of ILEC during his two-year stint with the organization.

New ILEC Scientific Committee Member

Professor Eric O. Odada, a Kenyan, joined the ILEC Scientific Committee on June 25, 2002. Dr. Odada has a background in geochemistry and is a Professor of Geology at the University of Nairobi. His current interest is in global change research. He heads the Pan-African Secretariat of START (global change SysTem for Analysis Research and Training). START fosters a regional approach to interdisciplinary global change research. Dr. Odada is also the Scientific Coordinator, International Decade for the East African Lakes (IDEAL) Program, which is a multi-national, multi-disciplinary investigation of the limnology of East African Lakes. The mission of IDEAL is to contribute to understanding of the African Great Lakes, to facilitate the transfer of this knowledge to resolving environmental issues, and to build scientific partnerships between international and regional scientists in order to exchange knowledge and facilitate capacity building in the region. Dr. Odada was a member of the Global Environment Facility (GEF) Scientific and Technical Advisory Panel between 1998 and 2000. He is also involved in several other regional and international programs. Dr. Odada's expertise in geology will enhance the range of expertise available within ILEC's Scientific Committee. In addition, it is expected that Dr. Odada will play a vital role in organizing the 11th World Lake Conference in Kenya in 2005.



Logo and catchphrase for 'Biwako Declaration 2001'

At the 9th International Conference on Conservation and Management of Lakes held in Otsu, Shiga in November 2001, the Biwako Declaration was adopted to address the importance of cooperation between all people with an interest in keeping lakes in optimum condition. To diffuse the spirit of the declaration and to develop further international conferences on lakes, a competition was held to find a logo and catchphrase that would symbolize the significance of the Declaration. **The winner of the best logo was Ms. Ryoko Yasui from Osaka, Japan and the winner of the catchphrase competition was Mr. Koichi Imakita of Shiga Japan.** (The catchphrase is shown here below the logo.)



琵琶湖宣言 2001

Glittering Water, Vibrant Fish
Biwako Declaration 2001

[Other Outstanding Entries]

■ Logos

- Ms. Valentina Khaydarova (Uzbekistan)
- Mr. Yuji NAKAYAMA (Hikone city, Shiga Pref.)
- Ms. Ma.Victoria P. Migo (Philippines)
- Ms. Keiko HAGURO (Hino town, Shiga Pref.)
- Ms. Hiromi OGURA (Takatsuki town, Shiga Pref.)

■ Catchphrases

- Mr. Osamu FUJIMOTO (Nagahama city, Shiga Pref.)
- Mr. Van der Helm, Ruud (France)
- Ms. Lemeshko Natalia (Russia)
- Mr. Akio MAENO (Kyoto city, Kyoto Pref.)
- Mr. Kazuyuki HANO (Otsu city, Shiga Pref.)

The ILEC Guideline Books on Lake Management are now available in PDF format on the ILEC website. The Guideline Books have been separated into chapters for easy downloading and can be obtained by going to the following URL:<http://www.ilec.or.jp/eg/>

International Symposium on Comparing Great Lakes of the World (GLOW III)

(by Victor Muhandiki, ILEC, February 18 - 20, 2002, Arusha, Tanzania)

The third international symposium on comparing Great Lakes of the World (GLOW III) was held in Arusha, Tanzania, between February 18 - 20, 2002. GLOW III was part of a continuing series of international symposia being organized by the Aquatic Ecosystem Health and Management Society (AEHMS) to promote interaction and communication between Great Lakes scientists and communities across the world. The first two conferences were held in Zimbabwe and Ireland. GLOW III was organized by AEHMS, the Lake Victoria Fisheries Research Project (LVFRP) and the Lake Victoria Fisheries Organization (LVFO). About 80 participants from African Great Lakes and other lakes of the world attended the symposium. ILEC was represented by Dr. Masahisa Nakamura (ILEC Scientific Committee Member) and myself.

Discussions at GLOW III centered on the three African Great Lakes - Malawi, Tanganyika and Victoria. Presentations on other Great Lakes of the world, including the Laurentian

Great Lakes were also made. For the African Great Lakes, the main topic of discussion was fisheries and fisheries management, because of the important role fisheries plays in the economies of the riparian countries. Other topics discussed included biodiversity, impact of climate change on the Great Lakes, structure, functions and performance of the Great Lakes food webs, exotic invasion of the Great Lakes, eutrophication, pollution and its impacts on the ecosystem, and integrated management of the Great Lakes.

In the panel discussion held at the conclusion of the symposium, the need to link science (research) and management was emphasized. It was noted that scientists should communicate their research findings (with appropriate recommendations for management action) to managers in a language that the latter can easily understand. There is need for continuous interplay and networking between scientists and managers at the local and regional levels. It was also

observed that many projects on the African Great Lakes are donor driven and tend to be short-term problem solving projects that lack continuity when the projects end. To ensure sustainability of such projects, the need for country drivenness on the part of the riparian countries was emphasized. There was a strong objection by a researcher from East Africa to the suggestion that research should be market driven. He noted that while biodiversity may be a market driver in the West, this is often not the case in Africa.

All in all, the symposium was a great opportunity for ILEC to interact with scientists working on African Great Lakes. We were able to build new networks with these researchers. We were also able to share with the participants ILEC's current activities, including the "Towards a World Lake Vision" process and preparations for the 3rd World Water Forum in Japan in March 2003. We look forward to the contributions of the GLOW III participants to these activities.



GLOW III participants

3 Days in Kunming

(by Thomas Ballatore, ILEC, March 25-27, 2002, Kunming, China)

An exciting 3-day workshop was held in late March in Kunming, China on eutrophication of lakes in China. The Asia-Europe Environmental Technology Centre (AEETC) (www.aeetc.org) and the Yunnan Environmental Protection Bureau (YEPB) organized the meeting that drew over 50 participants from Asia and EU countries.

The meeting was held in Kunming, a city of several million on the shores of Lake Dianchi, a highly eutrophic lake. Participants were taken on a boat tour of the lake as well as to some of the pollution control projects in the watershed. The experience was sobering. Despite recent conservation efforts, Lake

Dianchi remains in poor shape: the lake is devoid of fish; the water supply is threatened; pea-soup conditions exist in certain areas; water hyacinth has invaded, etc. Simply put, the lake embodies most of the problems that are facing lakes in highly developed catchments around the world.

The meeting was notable because of its atmosphere: cordial and infused with a sense of mission with most time spent in productive discussions. The participants were called on to give recommendations to the YEPB about how to best remedy to situation as well as how to treat eutrophication in general in China. A summary report can be

found at http://www.aeetc.org/workshop_recommendations.pdf

In short, the recommendations call for integrated management stressing the need to control all sources of pollution (point, diffuse, and internal). Recommendations for specific future studies and cooperation were also made.

It will be interesting to see how the situation at Dianchi develops. The challenges are immense, but it seems that the local and national governments as well as a large group of foreign organizations are endeavoring to save the lake. For these reasons, ILEC has included Lake Dianchi in the LakeWatch 25 report to appear in 2003.

The 50th meeting of the Board of Directors of ILEC

The 50th meeting of the Board of Directors was held on May 27 at ILEC's offices by Lake Biwa attended by 5 of 14 directors and one auditor. Before starting the board meeting, the Director General presented letters of appreciation and framed paintings by Hiro Yamagata to two groups as thanks for their large donations to ILEC funds. The groups were Japan Chuo Region of Soroptimist International of the Americas, and Shiga DC Card Co., Ltd.

At the meeting, two main issues were submitted and approved unanimously. The first was the statement of balance in the fiscal year of 2001 and the other the election of Mr. Goshi, the director general of National Institute for Environmental Studies, as a new councilor to succeed Mr. Ooi, who had resigned the position.

The 46th meeting of the Council of ILEC

The 46th meeting of the council was held on May 30 at ILEC's offices and was attended by 5 of 13 councilors. At the meeting, the statement of balance in the fiscal year of 2001, which had been approved by the board of directors, was also approved.



LAKES OF THE WORLD

LAKE CHAPALA - MEXICO

Lake Chapala in the State of Jalisco is located at 20.1°N, 103.6°W at an altitude of 1520m and is one of the oldest tectonic lakes in North America. With a surface area of 1,112km² it is the largest lake in Mexico and is believed to be the largest shallow lake in the world.

The area around the lake is temperate/subtropical with temperatures ranging from 32°C to 15°C, but normally about 24°C. This mild climate has made Lake Chapala a resting place for millions of migratory birds. Water flows into the lake from the Rio Lerma-Santiago catchment area of 54,400km², which stretches over the states of Jalisco, Michoacan, Guanajuato, Queretero, Mexico and Nayarit.

Over the years, excessive water exploitation of both the watershed and the lake itself has resulted in a drastic retreat of the shoreline and a 5m drop of the mean water level. Currently, the lake has a maximum depth of 10.5m and a mean depth of 7.2m. The shallowness of the lake is a major physical factor affecting the limnetic ecosystem. This shallowness generates an almost continuous bottom stirring of the fine volcanic clays and anthropogenic materials introduced from the Rio Lerma and the villages surrounding the lake.

The land encompassed by the Rio Lerma-Santiago watershed contains 1/8 of Mexico's irrigated land and provides the water supply for over 10 million people. The population density is 118.7 persons per km². Over 28,000 deep water wells pierce the 38 aquifers beneath this watershed;



it is estimated that 70% of these aquifers are being over exploited.

The entire area is an important source of agricultural (13% of National production) and forestry products, however only 70% of agricultural water needs are being met. In the past decade over 50,000 hectares of forest land has been removed to provide for more irrigated agricultural land. This growth of irrigated agriculture, relative to seasonal agriculture has increased agricultural production at the expense of a diminishing water supply. Industrial facilities within the area contribute 19% of the national total.

Fishing on the lake is a small but economically and traditionally important part of lakeside life. Fishermen ply the waters daily searching for the endemic *Chirostoma* (Charales), Carp, and Catfish, the primary catch being Charales and exotic Tilapia. Over the past decade the number of fishermen has slowly declined from 2041 in 1987 to the current 1699. The number of fishing implements employed rose from 25,000 in 1987

to 51,400 in 1999. Rather than increasing the catch, a combination of over fishing, lack of regulatory controls and rapidly declining water volume and quality resulted in a decline in catches from 13,711 tons in 1990 to 3,484 tons in 1998.

Rapid growth of huge floating mats of water hyacinth (*Eichornia crassipes*) eventually covered 13% of the lake surface (135km²) and increasing blooms of blue-green algae (*Anabaena flos-aquae*) in the early 1990's signaled increasing eutrophication of the lake.

This floating biomass hindered fishermen, water transportation, water fowl feeding and water sports. In 1993 a cooperative program using unemployed men to manually remove water hyacinth from the lake proved that local action could achieve results. This program has kept the lake reasonably clear of hyacinth.

Today, this area of rich agricultural, fishing, and recreational resources is rapidly reaching an ecological point of no return. Only through timely, caring intervention by international, national, state, NGOs, and

local authorities can this downward cycle be halted and the process of healing the lake begin. The loss of Lake Chapala would be an unthinkable tragedy, resulting in incredible hardship on the indigenous people, a blow to the Mexican economy and the destruction of a precious ecosystem. The effects of this ecological degradation are seen today; a continuing decline will negatively affect the region for generations to come.

In spite of a gloomy picture and impossible barriers, growing concern on international and local levels have forced both national and state law makers to seriously address the problem. Battles between states, different socio-economic groups,

and the agro-industrial complex must now be put aside. Not surprisingly, the current crusade is being led by a loose coalition of 62 pro-lake organizations representing every sector of society. The most active and visible of these groups is the NGO "Sociedad Amigos del Lago de Chapala" which has been fighting for Lake Chapala for the past 15 years. Amigos del Lago made a well received presentation to the ILEC Joint Symposium at Lake Biwa in Japan. Amigos del Lago and the other groups have agreed to work collectively to propose programs to both the private and public sectors calling for prompt action to launch educational and public works programs leading to better, more efficient, and

equitable means to deal with water allocation and use, tertiary treatment of effluents entering the Rio Lerma and the lake, and more efficient and sustainable techniques of fishing and farming.

SOCIEDAD AMIGOS DEL LAGO DE CHAPALA, A.C.

John Bragg

Member of President Board

Note: Statistical data has been derived from various governmental and academic sources which were often not in agreement or perhaps dated. I have attempted to select and extrapolate data to reflect the current status and apologize for any errors or omissions.

General Information on the 12th Biwako Prize for Ecology

<Outline>

In order to improve the quality of the Biwako Prize and the awardees, much more time is going to be spent on deliberation of selecting papers from this April of this fiscal year. Therefore the announcement of the names of the awardees and award presentation ceremony will be held in May and in July respectively next year.

<Duration>

From July 1, 2002 to October 30, 2002

<Description of the Prize>

(1) Eligible Nominees

(a) Individual person, in principle.

(b) Nominees must reside in East and Southeast Asia, including the eastern part of Russia, and Western Pacific Area, but excluding Australia and New Zealand, whose research achievements in these areas are highly acclaimed.

(c) Nominees should be those who have made significant achievements in the study of ecology or related sciences dealing with aquatic environments and/or related subjects, and who are expected to develop further and advance their research. Important practical contributions of their research to mitigating water-related environmental problems will also be evaluated.

(d) Nominees should be, as a rule, under 50 years of age as of April 1, 2002.

(2) Award

(a) The Prizes will be conferred on two researchers.

(b) A certificate of merit and five million yen will be awarded to each researcher.

<Decision of the Awardees and Award Presentation Ceremony>

The awardees will be decided in May 2003 and the award ceremony will be held on July 1, 2003. Also the events to commemorate this ceremony will take place concurrently.

<Address to contact for further information and to which the Nomination Form should be returned>

[Address to contact for further information]

Secretariat of BIWAKO PRIZE FOR ECOLOGY
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TEL: +81-77-528-3451 FAX: +81-77-528-4844
E-mail: de00@pref.shiga.jp

[Address to which the Nomination Forms should be returned]

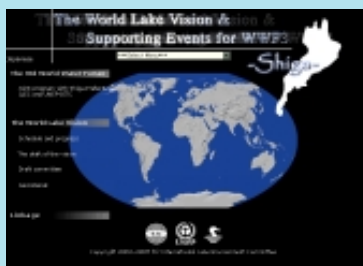
Assistant Secretariat of BIWAKO PRIZE FOR ECOLOGY
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Homepage: <http://www.ilec.or.jp/prize/e-index.html>

Joint Programs by ILEC, Shiga Pref. and UNEP-IETC for WWF3

Name of programs	Date	Venue	Expected participants	Outline of activities
Freshwater lakes management workshop	27/ 8/2002	Johannesburg	Experts,Citizens, NGO Administrative agent	Presentation and discussion of the "World Lake Vision".
	19/11/2002- 23/11/2002	UNEP center Lake Biwa Museum	Experts,Citizens, NGO Administrative agent	The main theme is "Freshwater Lakes Management". A workshops will be held from Nov. 19 to Nov. 22. The last day, Nov. 23, is for the symposium.
International conference on water Resources Management of The 21 st Century in Shiga	22/ 2/2003- 23/ 2/2003	Maibara-cho	Experts, Citizens, NGO Administrative agent	Reports and discussions will be held under four sub-themes. The main theme is 'The freshwater crisis and paths to solutions'.
Freshwater and lakes session	19/ 3/2003	Piazza Omi (Otsu-city)	Experts, Citizens, NGO Administrative agent	Reports and discussions will be held for "Integrates Water Resources Management (IWRM) & Environmentally Sound Technologies (EST)".
	20/ 3/2003	Otsu-city	Experts, Citizens, NGO (participants in WWF3)	
World conference of prefectural governors and prefectural assembly chairpersons from lake areas	19/ 3/2003	Piazza Omi (Otsu-city)	Prefectural governors and prefectural assembly chairpersons from areas with lakes in Japan and abroad.	Reports and discussion will be held for 'Integrated freshwater lakes management'. A message on the importance of the proper management of lakes will be issued.
	20/ 3/2003	Otsu-city	Participants above and Experts, Citizens, NGO (participants in WWF3)	
The session for "The "World Lake Vision" session	20/ 3/2003	Otsu-city	Experts, Citizens, NGO (participants in WWF3)	To present the "World Lake Vision" and to discuss its implementation.

New World Lake Vision Website

One of the Workshops to be held at the 3rd World Water Forum will be one given by ILEC on the subject of 'The World Lake Vision'. The Workshop will be held on March 20, 2003 (which also happens to be Shiga Day) in collaboration with the Shiga Prefectural Government and UNEP/IETC.



In preparation for the Workshop a new webiste has been established through which the ILEC Secretariat will disseminate as much information as possible. Please access the website (address given under the graphic) and let us know if you have any suggestions or comments.

www.ilec.or.jp/WWF/eng/



INTERNATIONAL LAKE ENVIRONMENT COMMITTEE

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