

## Recent Development & Future Perspective of the ILTER



## OUTLINES

- Background
- Major Activities & achievement
  - Organizational Stability (AGM, Bylaws...)
  - Strategic Plan & operations plan
  - Fundraising and Marketing
  - Legal Entity
  - Science and Programs
  - Ecoinformatics and Cyber-infrastructures
  - International Collaborations
- Future Development
- Acknowledgements



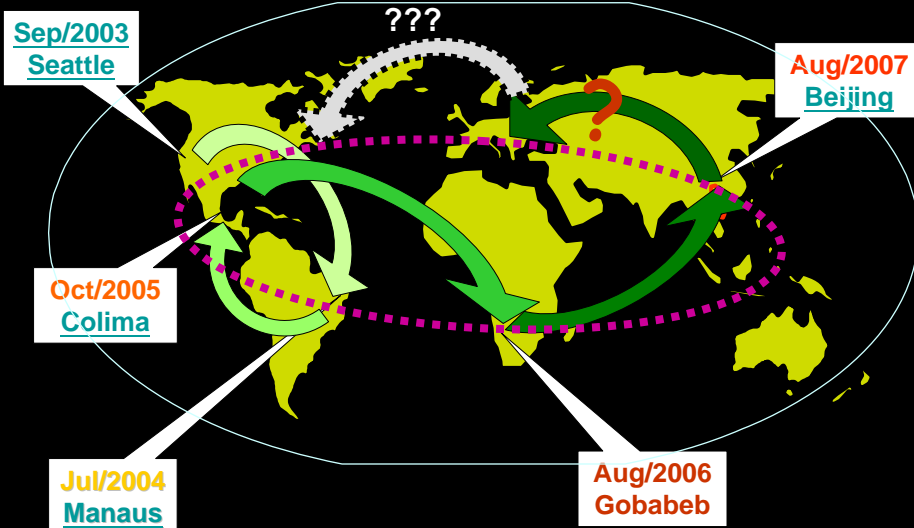
## Background (1/2)

- The ILTER Network was launched in 1993 to meet a growing need for communication and collaboration among long term ecological researchers.
- The ILTER is unique in many attributes and can fill an unoccupied niche in the science communities

## Background (2/2)

- For the first 10 years of development, the Network solely supported by the NSF-USA. Then, since 2004 the network has increasingly had to rely on the resources provided by all its member networks.
- As of 2006 the ILTER network has 34 member networks.
- The aims, missions, goals, and other relevant information can be accessed at its website at <http://www.ilternet.edu/>.

# Annual General Meetings (2003-2007)



## 2003 AGM Seattle

Executive Committee Meeting on September 23, 2003



New structure w/i US-LTER Program; NSF's New Funding Policy



# Challenges

- Organizational Stability
  - Funding Security
  - Legal Entity
- Science Collaborations
- Information Management
- Information Technology

Program Coordinator (Video/Call)

Individual, Regional Networks

Systems

Networking

March 2004, Taipei



## ILTER-Bylaws

### INTERNATIONAL LONG-TERM ECOLOGICAL RESEARCH NETWORK - ILTER Network

#### POLICY DOCUMENT

#### 1. NAME AND IDENTITY

*The International Long Term Ecological Research Network (ILTER Network)* consists of Research Networks of scientists, collectively engaged and dedicated to multi- and interdisciplinary long-term and large spatial scale research and monitoring in ecological science including human dimensions. Funding for the ILTER Network is by means most appropriate for the specific Member Network.

#### 2. ILTER NETWORK VISION, MISSION, and GOALS



## Bylaws

- Drafted in Spring 2004 and was later revised many times with substantial inputs from all members.
- Presented in the 2004 AGM in Manaus, Brazil.

Jul/2004  
Manaus

2004 AGM Manaus

*Bylaws*  
presented,  
discussed,  
Revised,  
& adopted

Austria LTER  
LTER Latvia  
Mozambique LTER,  
**30** Member Networks

Jul. 2004, Manaus

ILTER logo

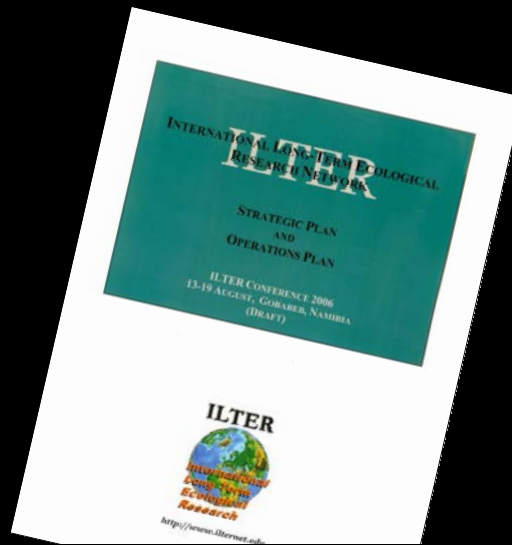


## Strategic Plan

- The network was facing challenges in funding security and organizational stability
- Strategic plans are an effective means of guiding an organization facing such challenges and planning for the future.
- A consultant firm was commissioned to set up a guide to the development of strategic plans. The funding to produce the 2006-2016 strategic plan was provided by the US-NSF.

## Strategic Plan

- Organizational Strategies - Legal structure
- Fundraising and Marketing Strategies
- Science & Program Strategies  
-research agendas, collaborations, eoinformatics, creating Cyberinfrastructures,
- Communication, Education, and Public Awareness Strategies.



Strategic Plan (draft)  
Environment & Enterprise Strategies [Holly Kaufman]



Strategic Plan (final)

## 2006 AGM Gobabeb

Aug/2006  
Gobabeb

- *Strategic Plan*  
Revised &  
Endorsed
- Fundraising
- Legal Entity
- New Chair
- Subcommittees

LTER-Italy  
Malawi-MEON

**34** Member Networks

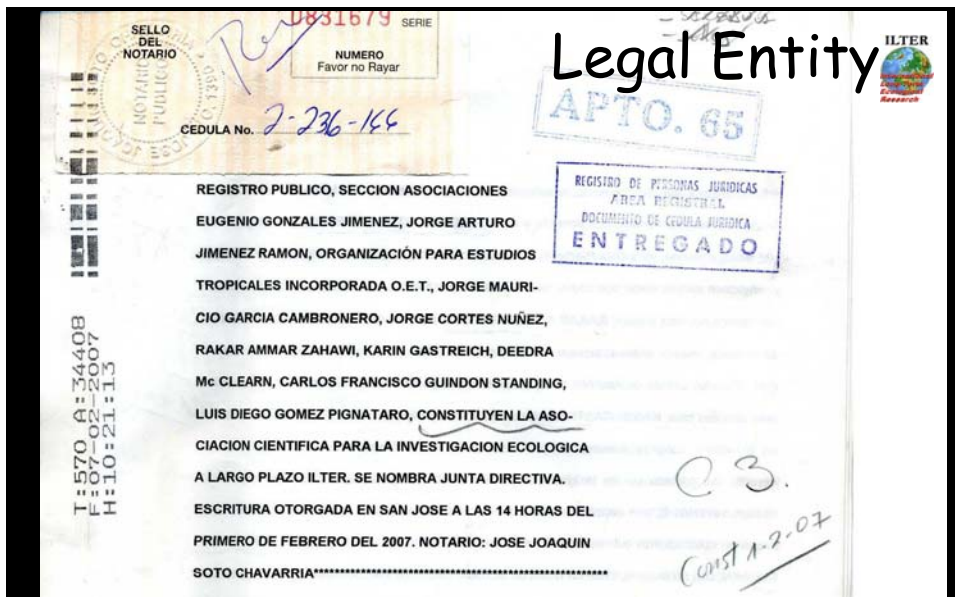


## Chair-elected: Terry PARR



- Vice-chair: Steven Hamburger
- Science & Program Committee: Patrick Bourgeron
- Fundraising Committee: Jorge Jimenez
- Information Management Committee: Kristin Vanderbilt





- The Scientific Association for Long Term Ecological Research (ILTER) has been incorporated in Costa Rica since February, 2007.

**Oct/2005 Colima**

**AGM Colima**

Strategic Plan was Discussed

LTER-D,  
Lithuania LTER

**32** Member networks

2007 Beijing

Legal Status

FinLTSER  
JaLTER,  
Thai-LTER  
Philippine-LTER  
38 Member Networks?

ILTER

## Science Collaborations & Information Management

- Lake Metabolism Project  
<http://www.lakemetabolism.org>  
<http://www./Gleon.org>
- Coral Reef Biology  
<http://www.coralreefeon.org>
- Information Management

# Lake Metabolism Project

- Several lakes in Wisconsin (US-LTER) and Yuan Yang Lake (TERN) have been instrumented and near-real time data from the lakes are available at the Collaborative Lake Metabolism Project in 2004.
- In March 2005, the network expanded into 10 countries and a GLEON was launched (<http://Gleon.org>)

TERN-US LTER Network- a Collaborative Lake Metabolism Cyber-infrastructure Project  
North Temperate Lakes      Yuan-yang Lake



US-LTER Network



TERN

## Tropical Coral Reef Project

- Develop ties between the MCR-LTER and KCR-TERN sites
- Evaluate the potential for collaboration based on the cyber-infrastructure and coral reef habitats
- Demonstrate the ability to work collaboratively to further science objectives.

*(<http://www.coralreefeon.org>)*

## Information Management (IM)



- Focus on the use & development of metadata using LTER-IM Systems
- Learn about the methods US-LTER sites are using for managing their data
- Inviting participants from all EAP-ILTER.
- The EAP-ILTER data managers now can get Metacat software to operate on Windows-based server & resolve language & character-set issues in MORPGO & EML.

# Activities and Achievements

## Summary

- Enactment of Bylaws
- Completion of a 2006-2016 strategic plan
- Implement part of the operations plan
- Conduction of collaborative research projects
- Development of information management system
- Adoption of information technologies for LTER (e.g. Wireless Sensors for Ecology)
- Facilitation of longer term and broader spatial, multi-disciplinary ecological researches.

## Thanks

- The ILTER network has been operated collectively by all involved member networks. I would like to express great thanks for their substantial inputs and close cooperation to move the ILTER Network forward. Special thanks are due to Steven HAMBURG, vice-chair of the ILTER Network and associated professor at Brown University, USA, for his extensive involvement and great contribution since the launching of this organization. The *Bylaw* was first drafted by John VANDE CASTLE, the University of New Mexico, USA, and revised by the regional representatives of the network. Patrick BOURGERON, chair of the Science and Program Committee of the ILTER and professor of Colorado University at Boulder, USA, contributed to the formulation of the Science Program. Strategic plan, including fundraising and legal entity issues, were prepared by Holly KAUFMAN, president of Environment & Enterprise Strategies based in San Francisco, USA. Development of information management systems and coordination of cyber-infrastructures were conducted by John H. PORTER, Research Associate professor and VCR/LTER Data Manager, University of Virginia and Chin-chau LIN, Senior Scientist, Taiwan Forestry Research. Lake Metabolism project was researched and wireless sensors network coordinated by Tim KRATZ, professor at the University of Wisconsin and Peter ARZBERGER, Executive Director, National Partnership for Advanced Computational Infrastructure (NPACI) at the University of California-San Diego, USA. Finally, I must thank the Department of International Cooperation, National Science Council (NSC), Taiwan, for its financial support (particularly producing the *Bylaws*) for the ILTER's activities for then past four years. All major developments during these four years could not have been achieved so successfully without the support of the NSC-Taiwan and US-NSF.

## Thanks

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- All TERN colleagues- Yue-joe HSIA, Chau-chin LIN, Teng-chiu LIN, ...
- All EAP-ILTER colleagues-Eun-Shik Kim & Zhao Shidong, Abd, Tohru, Victor, Youngyut, ...

## Thanks

- Steven HAMBURG, for his extensive involvement and great contribution since the launching of this organization.
- The *Bylaw* was first drafted by John VANDE CASTLE,
- Patrick BOURGERON, to the formulation of the Science Program.

## THANKS

- Strategic plan, including fundraising and legal entity issues, were prepared by Holly KAUFMAN
- For legal entity, Jorge JIMENEZ
- Development of information management systems and coordination of cyber-infrastructures were conducted by John H. PORTER, and Chin-chau LIN,
- AGMs: Manuel, Franciso, Joh, Shidong

## Thanks

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- I must thank for my government's financial support (particularly producing the *Bylaws*) for the ILTER's activities for the past years.
- All major developments during these four years could not have been achieved so successfully without the support of

# THANKS

- Bill Chang
- The TERN and ILTER Network should thank him for his more ten years supports in various ways, particularly in developing international research collaboration and IM.

# Special THANKS



Scientist is at work

Dr. Eun-Shik KIM