INTERNATIONAL LONG-TERM ECOLOGICAL RESEARCH NETWORK

FIVE-YEAR OPERATIONS PLAN

SEPTEMBER 2006 TO 2011

ILTER

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OVERVIEW OF 5-YEAR OPERATIONS PLAN
AND
10-YEAR VISION, MISSION, GOALS, STRATEGIES

This Operations Plan accompanies the International Long-Term Ecological Research (ILTER) Network's10-year strategic plan, which was developed by the ILTER membership.[*]   The strategic plan defines the organization's vision and mission, as well as its 10-year goals and organizational, scientific and communications strategies for achieving them. (Excerpted below).

This Operations Plan spells out phased, concrete objectives, action items and estimated annual budgets in order for ILTER to operationalize its 10-year goals and strategies. Phase One's objectives and action items are considerably more detailed than Phase Two, and Phase Three's will depend largely on the results of the previous phases. ILTER's Coordinating Committee (CC) will evaluate the organization's progress on an annual basis, and update this Plan accordingly and flesh out the action items for Phase Three.

Phase One: "Establish"
Phase one, September 2006 through 2008, will focus on "establishing" ILTER as a formal organization, building a professional staff , developing the necessary organizational and cyber-infrastructures to enable ILTER to achieve its mission and goals, agreeing on a policy-relevant global research agenda, and continuing to foster member participation and leadership.

Phase Two: "Implement"
Phase two, 2009 to 2010, will emphasize "implementation" of ILTER' science and program mandate, and focus on continuing to build international compatibility of the cyberinfrastructure, strengthening existing and new scientific collaborations, and communicating ILTER's research findings to policymakers and the public.

Phase Three: "Assess and Sustain"
Phase three, 2011 and beyond, will allow ILTER to "assess" its success to date and "sustain" and further its scientific work.

Each phase's objectives and action items are cognizant of and consistent with ILTER's leadership, staffing, funding, administrative and information management capacity, all of which will increase over time. As stated above, the Operations Plan is the roadmap that will help ILTER achieve its 10-year vision, mission, goals, and strategies as detailed in the Strategic Plan and summarized here:

Vision:

"ILTER's vision is a world in which long-term science helps prevent and solve environmental and socio-economic problems."

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[*] ILTER hired Holly Kaufman, head of Environment and Enterprise Strategies, to conduct its strategic planning process. See www.EnvironmentStrategies.com for information on the company, its services and clients and Ms. Kaufman's and her associates' experience.

Mission:

"ILTER consists of networks of scientists engaged in long-term, site-based ecosystem and socioeconomic observation and research. Our mission is to improve understanding of global ecosystems and inform solutions to current and future environmental problems."

The organization's mission is the guiding framework for all of ILTER's activities, though individual member networks may pursue missions that vary from that of the international network.

The mission emphasizes ILTER's dual purposes: 1) providing a forum for collection of continuous, long-term ecosystem data, and 2) providing question- and problem-driven scientific research to help solve identified and as-yet unidentified environmental problems.

10-Year Goals:

ILTER's 10-year goals broadly describe how ILTER will achieve its mission, and provide a framework for action. The goals are:

1. *Foster collaboration and coordination among socioeconomic and ecosystem researchers and research networks at local, regional and global scales*

2. *Improve comparability of data from LTER sites around the world, and facilitate exchange and preservation of this data*

3. *Deliver scientific information to scientists, policymakers, and the public to meet the needs of decision-makers at multiple levels*

4. *Facilitate education of the next generation of LTER scientists*

Strategies to Achieve Goals:

The strategies below describe the path ILTER will follow to achieve its goals. These strategies provide more detail on the structure of ILTER, how it will function, and what it will do.

1. *Organizational and Fundraising Strategies.*
   ILTER will transition from a volunteer association of networks to a formal organization with professional staff and diversified funding sources by: establishing the most appropriate legal structure, developing its governance procedures and hiring a small staff, establishing a secretariat/headquarters office, developing growth plans, and creating internal capacity. ILTER will diversify its funding sources beyond US-NSF grants and member in-kind contributions to include grants from foundations foundations, multi-lateral institutions, member-network governmental agencies, and member contributions.

2. *Science and Program Strategies.*
ILTER will chart its scientific and programmatic future by: setting global research agendas, developing collaborative research projects, standardizing and sharing data, creating a globally-compatible cyberinfrastructure, and determining the most appropriate mechanisms through which to deliver peer-reviewed research to decision-makers.
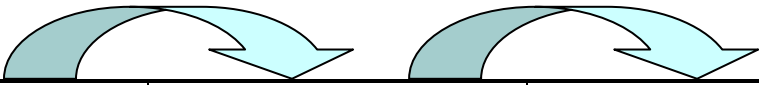
3. *Communication, Education, and Public Awareness (CEPA) Strategies.*
ILTER's communication, education, and public awareness strategies will include: convening scientific meetings, providing educational and collaborative research opportunities for junior scientists and graduate students, improving member communications, revamping ILTER's marketing and branding efforts, and conducting public outreach.

Acronyms used throughout this document include:

CC	Coordinating Committee
CI	Cyberinfrastructure
EC	Executive Committee
ED	Executive Director
DD	Development Director
FMC	Fundraising and Marketing Committee
IM	Information Management
IMC	Information and Management Committee
PPC	Public Policy Committee
SPC	Science and Program Committee

Strategies:	PHASE 1: ESTABLISH (SEPT. 2006 TO 2008)	PHASE 2: IMPLEMENT 2009 TO 2010	PHASE 3: ASSESS AND SUSTAIN 2011 AND BEYOND
	ILTER'S OBJECTIVES BY PHASE		
1. Organization and Fundraising	• Establish ILTER as a formal organization • Establish Fundraising and Marketing Committee • Raise approximately $500k each year in operating funds • Hire preliminary staff (at least Executive Director and Administrative Coordinator) • Evaluate success each year	• Fundraise: $600k to $750k per year • Hire remaining staff for secretariat: (Science & Program Dir., Fundraising & Marketing Dir., IM Dir.) • Evaluate success each year • Establish growth strategy	• Prepare and begin implementation of next five-year operations plan • Evaluate success each year • Build membership based on growth strategy developed in phase one
2. Science and Program	• Establish Science and Program Committee • Establish Information Management Committee • Agree on ILTER's research agenda • Launch collaborative research projects • Agree on globally-compatible cyberinfrastructure • Begin development of ILTER-wide database of research sites, expertise, collaborations • Establish Public Policy Committee • Determine key policymaking bodies that will be the most relevant recipients for ILTER's research	• Publish findings of collaborative projects • Launch new collaborative research projects • Continue development of globally-compatible cyberinfrastructure • Complete and launch ILTER-wide database of research sites, expertise, collaborations • Provide data to decision-makers, not advocating for/against policies, but to provide insight into solutions to problems, and help forecast outcomes of policies	• Continue collaborative research projects and publish findings • Achieve development of cyberinfrastructure that allows scientists to synthesize information and detect global trends
3. Communications, Education, and Public Awareness	• Conduct annual and regional meetings • Conduct branding and marketing review & begin implementation • Train members in globally-compatible CI • Include graduate students and junior scientists in annual meetings, publication authorship, IM trainings • Facilitate graduate student and/or scientist exchanges	• Conduct annual and regional meetings • Continue implementation of branding/marketing as needed • Train members in globally-compatible CI • Include graduate students and junior scientists in annual meetings, publication authorship, IM trainings • Facilitate graduate student and/or scientist exchanges	• Conduct annual and regional meetings • Train members in globally compatible CI • Include graduate students and junior scientists in: annual meetings, publication authorship, IM trainings • Facilitate graduate student and/or scientist exchanges

PHASE ONE : "ESTABLISH"
SEPTEMBER 2006 THROUGH 2008

In phase one, ILTER will focus on establishing itself as a formal organization, developing the infrastructure to guide collaborative research, establishing a global research agenda that is policy relevant, building a professional staff, and continuing to grow member participation and leadership.

Phase One Organization and Fundraising Objectives and Action Items:

In phase one, ILTER will transition from a volunteer association of networks to a formal organization with professional staff and diversified funding sources. Phase one will be a period of intense fundraising, which will require new sources of funds, including foundations, multi-lateral funding agencies, member governments, and others. Phase one includes six key objectives as described below, and suggested action items.

1. *Objective:* Establish ILTER as a formal organization	*Responsibility:*
Action Items: a. Establish legal entity or formalize relationship with host institution b. Put in place the appropriate governance structure, as required by laws in country of establishment c. Establish an ILTER secretariat office (i.e. headquarters) d. Appoint Officers of the Executive Committee e. Determine roles and authority for staff and committees and revise by-laws accordingly f. Form advisory council of former ILTER leaders	a. EC b. EC c. EC and CC d. EC e. EC f. EC and CC
2. *Objective:* Establish the Fundraising and Marketing Committee (FMC)	*Responsibility:*
Action Items: a. Write the Fundraising and Marketing Committee (FMC) charter b. Determine founding membership of the FMC	a. EC b. EC and CC
3. *Objective:* Raise approximately $500,000 in operating funds for the ILTER headquarters each year (see budget)	*Responsibility:*
Action Items: a. Establish fundraising goals according to type of funding source b. Raise funds from foundations, multilateral agencies, member network governmental science organizations c. Determine members' financial responsibilities (annual dues and in-kind contributions) d. Record potential funding sources for members on website as discovered	a. FMC, EC, and ED b. FMC, EC, and ED c. FMC, EC d. FMC
4. *Objective:* Hire an Executive Director and an Administrative Coordinator, plus other staff as funding allows (see budget)	*Responsibility:*
Action Items: a. Conduct staff searches b. Determine appropriate salaries, job descriptions, duties, responsibilities, and authority	a. EC b. EC
5. *Objective:* Each year, review and evaluate success at achieving objectives	*Responsibility:*
Action Items: a. Did ILTER reach its science and program objectives? b. Did ILTER reach its organizational and fundraising objectives? c. Did ILTER reach its IM objectives d. Did ILTER meet its CEPA objectives?	a. SPC b. EC/ED/FMC/CC c. IMC d. FMC
a.	

Phase One Science and Program Objectives and Action Items:

In phase one, ILTER will develop the scientific committees and research agenda to meet its 10-year scientific goals: 1) foster collaboration and coordination among ecosystem researchers, 2) improve comparability of long-term ecosystem data and facilitate exchange and preservation of data, and 3) deliver scientific information to scientists, policymakers and the public.

1. *Objective*: Establish a Science and Program Committee (SPC)	*Responsibility:*
Action Items: a. Write the Science and Program Committee (SPC) charter b. Determine founding membership of the SPC c. Establish means and frequency of communication	a. EC b. CC c. SPC
2. *Objective:* Agree on ILTER's research agenda	*Responsibility:*
Action Items: a. Work with ILTER members and key stakeholders to identify priority areas of research, with particular consideration of the scientific trends identified in the strategic plan b. Create a Science Advisory Council, composed of scientists from outside of ILTER to give input to the SPC's work c. Organize the first ILTER network-wide scientific topic meeting	a. SPC b. EC/SPC/CC c. SPC
3. *Objective:* Establish an Information Management Committee (IMC)	*Responsibility:*
Action Items: a. Write the Information Management Committee (IMC) charter b. Determine founding membership of the IMC c. Establish means and frequency of communication	a. EC b. CC c. IMC
4. *Objective*: Begin development of globally-compatible cyberinfrastructure	*Responsibility:*
Action Items: a. Conduct CI trainings at ILTER member networks or regions b. Poll ILTER members to determine connectivity status of sites and scientists by country or region c. Lay foundation for cyberinfrastructure (*e.g.*, common measurement units, metadata, etc)	a. IMC b. IMC c. IMC
5. *Objective*: Launch collaborative research projects	*Responsibility:*
Action Items: a. Develop subcommittees of the SPC if necessary b. Organize an ILTER network-wide scientific topic meeting c. Include participation of graduate students and/or junior scientists in research efforts and/or authorship of scientific publications	a. SPC b. SPC c. SPC
6. *Objective:* Begin development of a ILTER-wide database of research sites, expertise, and collaborative possibilities	*Responsibility:*
Action Items: a. Begin building network-wide database	a. IMC
7. *Objective:* Establish a Public Policy Committee (PPC)	*Responsibility:*
Action Items: a. Write the Public Policy Committee (PPC) charter b. Determine founding membership of the PPC c. Establish means and frequency of communication	a. EC b. CC c. PPC
8. *Objective*: Determine key public policymaking bodies that will be the most relevant recipients for ILTER's research and data	*Responsibility:* a. PPC/SPC

Phase One Communications, Education and Public Awareness (CEPA) Objectives & Actions:

Phase one will be less focused on CEPA objectives and more focused on the organizational, fundraising, and scientific objectives outlined above. ILTER's CEPA objectives for phase one are:

1. *Objective:* Conduct annual meeting and regional meetings	*Responsibility:*
Action Items: a. Work with host network to ensure successful sessions for the SPC, IMC, FMC. Work with regions to ensure consistency and compatibility with strategic plan and with committee work at regional meetings b. Invite graduate students and/or junior scientists to attend annual, regional and all-scientists meetings	a. EC, SPC/IMC /FMC/PPC b. SPC
2. *Objective:* Conduct ILTER branding and marketing review	*Responsibility:*
Action Items: a. Assess the strengths and weaknesses of ILTER's name, logo, and tagline; propose changes to the Coordinating Committee b. Develop new ILTER marketing materials, including printed brochure and a redesigned, continually-updated website c. Hire a web and database designer and programmer	a. FMC b. ED c. ED
3. *Objective:* Facilitate graduate student and/or junior scientist exchanges	*Responsibility:* a. ED
4. *Objective:* Train ILTER members on globally-compatible CI	*Responsibility:*
Action Items: a. Conduct trainings at ILTER member-networks, building on the prior year's trainings	a. IMC

Phase One Estimated Annual Budgets:

ILTER has been dependent on the U.S. NSF and member in-kind contributions, and has had no fundraising function or relationships with funders. The estimated "ideal budget" of $500,000 is based on member-network budgets (ranging from $80,000/year to $1.65 million/year), and, while ambitious, reflects a lean overhead for an organization with the comprehensive mission of ILTER[2]. ILTER's fundraising capacity and success will ramp up over the course of phase one. Since it may be unrealistic to obtain all funds required in 2006 and early 2007, a minimum "survival budget" is also provided.

ESTIMATED IDEAL ANNUAL BUDGET FOR PHASE ONE YEARS 2007 AND 2008	
ITEM	AMOUNT (USD)
Salaries (includes 18% fringe benefits) Executive Director, $80,000 Fundraising and Marketing Director, $70,000 IT Director, $40,000 Admin, $39,000	$270,000
Overhead, Equipment, Supplies, Printing Rent & Utilities (could be in-kind from host institution), $24,000 Capital Equipment & Cyberinfrastructure, $75,000 Supplies, $10,000 Printing, $5,000	$114,000
Member Support Staff Travel, $15,000 Member Travel, $25,000 AGM, $50,000 Conference Calls and Committee Expenses, $25,000	$115,000
TOTAL	**$499,000**

ESTIMATED MINIMUM BUDGET FOR PHASE ONE YEARS 2007 AND 2008	
ITEM	AMOUNT (USD)
Salaries (includes 18% fringe benefits) Executive Director (must also act as fundraising director), $75,000 Admin. Coordination (must also manage CI, website), $35,000	$130,000
Overhead, Equipment, Supplies, Printing Rent (in-kind from host institution), $0 Capital Equipment, $25,000 Supplies, $5,000 Printing, $2,000	$32,000
Member Support Staff Travel, $10,000 Member Travel, $20,000 AGM, $40,000 Conference Calls and Committee Expenses, $15,000	$85,000
TOTAL	**$247,000**

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[2] All administrative costs are estimates only, and actual costs for salaries, rent, overhead, etc. will depend largely on the location of ILTER's headquarters.

PHASE TWO: "IMPLEMENT"
2009 TO 2010

Phase two will build on the groundwork laid in phase one, with particular emphasis on full implementation of ILTER' science and program mandate. By phase two, ILTER will have a professional secretariat staff to coordinate administrative functions of the network, thus phase two will be focused on continuing to build international connectivity and compatibility of the cyberinfrastructure, strengthening existing and new scientific collaborations, and reaching out to public policymakers and the public to communicate ILTER's research findings.

Because phase one will be a defining time for ILTER, phase two's objectives and action items will need to be reviewed by ILTER staff and members prior to implementation.

Phase Two Organization and Fundraising Objectives and Action Items:

By the beginning of phase two (2009), ILTER should have established itself organizationally and developed relationships with an array of funding sources. In phase two, ILTER's objectives are designed to solidify and build upon the base formed in 2006, 2007 and 2008.

1. *Objective:* Evaluate success at achieving objectives annually	*Responsibility:*
Action Items: a. Did ILTER reach its science and program objectives? b. Did ILTER reach its organizational and fundraising objectives? c. Did ILTER reach its IM objectives d. Did ILTER meet its CEPA objectives? e. Check by-laws and revise if necessary	a. SPC b. EC/ED/FMC/CC c. IMC d. FMC e. EC
2. *Objective:* Establish ILTER's growth strategy	*Responsibility:*
Action Items: a. Determine the extent to which ILTER's growth should be driven by addition of national networks and sites that: 1) add value to scientific, problem-driven questions, 2) cover every major ecosystem on Earth b. Develop guidelines and applications for membership, revising by-laws as necessary c. Explore options for mutually-beneficial partnerships with other organizations	a. EC and CC b. EC c. EC
3. *Objective:* Raise at least $425,000 to $600,000 in operating funds for the ILTER headquarters each year (see budget)	*Responsibility:*
Action Items: a. Convene regular FMC meetings b. Continue to expand portfolio of ILTER funders - foundations, multilateral and international agencies, member- network governmental agencies and member dues c. Continue to record potential funding sources for members as discovered	a. FMC and ED b. FMC and ED c. FMC
4. *Objective:* Hire remaining staff for secretariat: (Science & Program Director, Fundraising & Marketing Director, Information Management Director)	*Responsibility:*
Action Items: a. Conduct staff searches b. Determine appropriate salaries, job descriptions, duties, responsibilities, and authority	a. ED, EC b. ED, EC

Phase Two Science and Program Objectives and Action Items:

Phase two will be considered successful if the following objectives are met:

1. *Objective:* Publish findings of collaborative research projects	*Responsibility:*
Action Items: a. Synthesize data and determine international research findings b. Submit findings to appropriate science journals c. Develop training sessions on findings at annual meeting	a. SPC b. Researchers c. SPC
2. *Objective:* Launch new collaborative research projects	*Responsibility:*
Action Items: a. Build on projects developed in phase one b. Step up networking of established and developing sites that share similar ecological settings, and encourage cooperation among sites c. Continue creation of research projects that are interdisciplinary, global, and focused on ILTER's strategic research objectives d. Include participation of graduate students and junior scientists in research efforts and/or authorship of scientific publications	a. SPC/CC b. SPC/CC c. SCP/CC/PPC d. SPC
3. *Objective:* Provide scientific data to decision-makers, while not advocating for or against specific policies, to provide insight into solutions to problems, and help forecast outcomes of policies	*Responsibility:*
Action Items: a. Review research foci developed in phase one to ensure relevance with current public policy foci	a. SPC/PPC b. SPC/PPC
4. *Objective:* Complete and launch ILTER-wide database of research sites, expertise, collaborations	*Responsibility:* a. IMC/ CC
5. *Objective:* Continue development of globally-compatible cyberinfrastructure	a. IMC/SPC

Phase Two Communications, Education and Public Awareness (CEPA) Objectives & Actions:

Phase two will be considered successful if the following CEPA objectives are met:

1. *Objective:* Conduct annual meeting and regional meetings	*Responsibility:*
Action Items: a. Work with host network to ensure successful sessions for the SPC, IMC, FMC b. Work with regions to ensure continuity between ILTER and regions at regional meetings c. Include graduate students/junior scientists in meetings and publications	a. EC, SPC, IMC, FMC b. SPC c. CC/EC
2. *Objective:* Facilitate graduate student and/or junior scientist exchanges	a. CC/EC
3. *Objective:* Train ILTER members on globally-compatible cyberinfrastructure	
Action Items: b. Conduct trainings building on the prior year's c. Include graduate students and junior scientists	a. IMC

Phase Two Estimated Annual Budgets:

The following phase two budgets should be updated annually, based on the previous year's actual fundraising successes and current needs.

ESTIMATED IDEAL ANNUAL BUDGET FOR PHASE TWO YEARS 2009 TO 2010	
ITEM	AMOUNT (USD)
Salaries (includes 18% fringe benefits) Executive Director, $85,000 Science and Program Director, $85,000 Fundraising and Marketing Director, $80,000 IT Director, $50,000 Admin, $40,000	$401,000
Overhead, Equipment, Supplies, Printing Rent (could be in-kind from host institution), $24,000 Capital Equipment & Cyberinfrastructure, $25,000 Supplies, $15,000 Printing, $20,000	$84,000
Member Support Staff Travel, $25,000 Member Travel, $50,000 AGM, $75,000 Conference Calls and Committee Expenses, $40,000	$140,000
TOTAL	**$625,000**

PHASE THREE: ASSESS AND SUSTAIN
2011 AND BEYOND

Phase three, 2011 and beyond, will allow ILTER to "assess" its success to date and "sustain" and further its administrative foundation and scientific mandate.

Phase Three Organization and Fundraising Objectives and Action Items:

Phase three will be considered successful if the following organizational objectives are met:

1. Prepare for and conduct next five-year operations plan
2. Evaluate success each year
3. Expand membership, based on growth strategy defined in phase one, and explore partnerships with other organizations

Phase Three Science and Program Objectives and Action Items:

Phase three will be considered successful if the following science and program objectives are met:

1. Achieve development of cyberinfrastructure that allows scientists to synthesize information and detect global trends
2. Continue to conduct collaborative research projects and publish findings

Phase Three Communications, Education and Public Awareness (CEPA) Objectives & Actions:

Phase three will be considered successful if the following CEPA objectives are met:

1. Conduct annual and regional meetings
2. Train members in globally-compatible CI
3. Include graduate students and junior scientists in: annual meetings, publication authorship, CI trainings
4. Facilitate graduate student and/or junior scientist exchanges

Phase Three Estimated Annual Budgets:

$600,000 to $1,000,000 per year.