

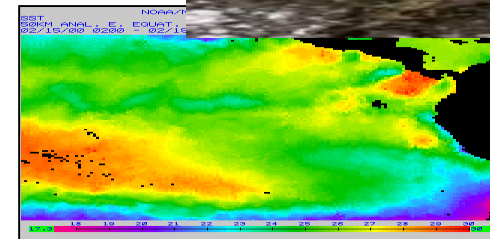
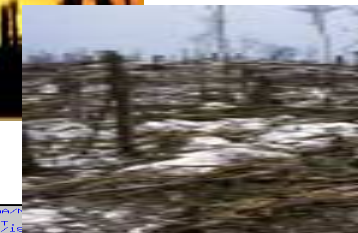


**Inter-American Institute  
for  
Global Change Research**



# GLOBAL CHANGE

**“Changes in the Global Environment (Including Alterations in the Climate, Land Productivity, Oceans or Other Water Resources, Atmospheric Chemistry, and Ecological Systems) that May Alter the Capacity of the Earth to Sustain Life”.**





## **IAI's MISSION**

**“IAI’s Mission is to Develop the Capacity to Understand the Integrated Impacts of Present and Future Global Changes on Regional and Continental Environments in the Americas and to Promote Collaborative Research and Informed Action at all Levels.”**

**(SAC, 1997)**



## **IAI's GOAL**

**To Augment the Scientific Capacity of the  
Region**

**to**

**Better Understand the Global Change  
Related Phenomena and their  
Socioeconomic Implications,**

**and**

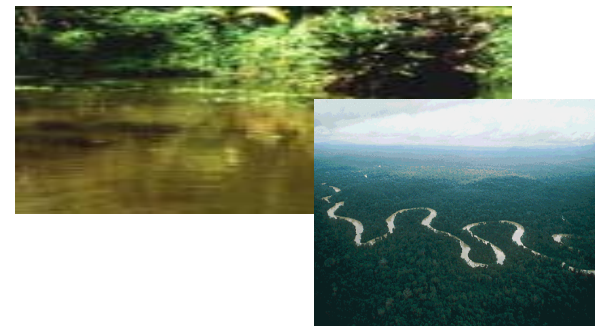
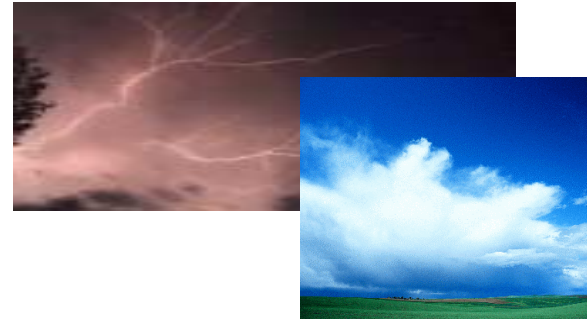
**to Next Promote, at all Levels, the  
Dissemination of the Emerging Information.**



# IAI SCIENCE AGENDA

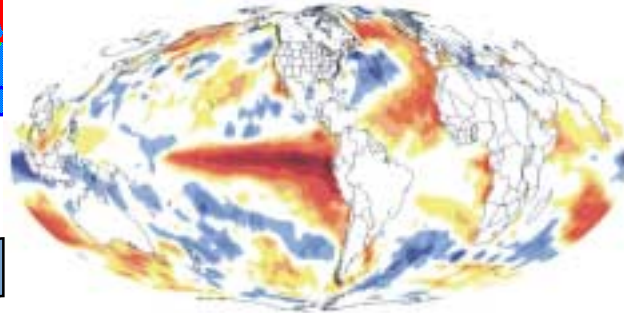
## 1. Understanding Climate Variability in the Americas:

- **ENSO** and Interannual Climate Variability;
- Ocean-Land-Atmosphere Interactions;
- Hydrology (Water Resources).

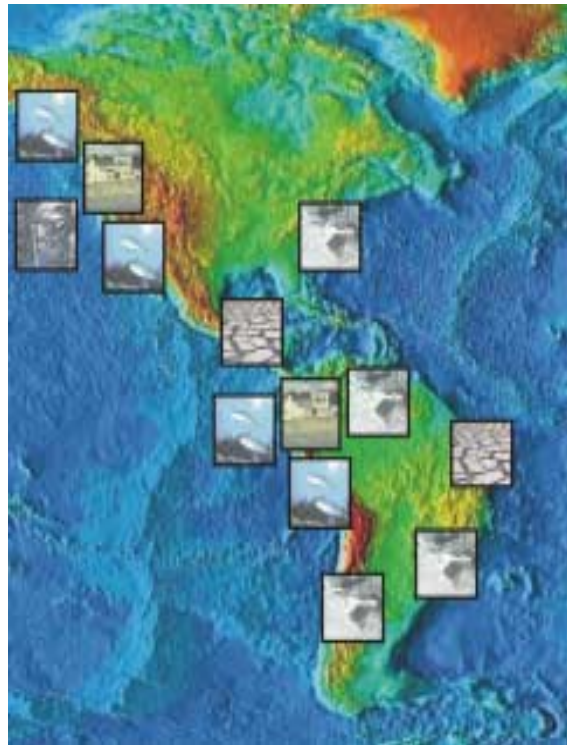
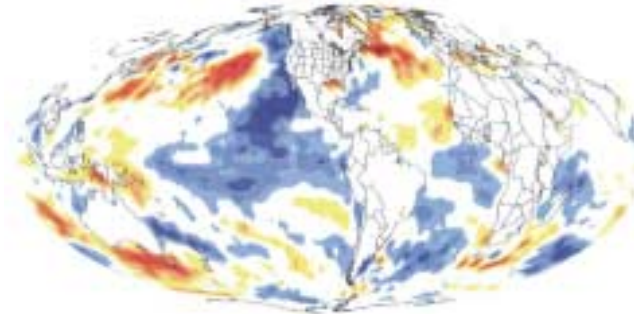




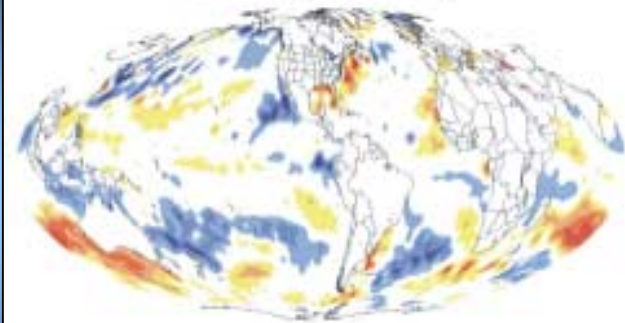
El Nino (November, 1997)



La Nina (November, 2000)



Normal (May, 1994)





## IAI SCIENCE AGENDA

### 2. Comparative Studies of Ecosystems, Biodiversity, Land Use and Water Resources in the Americas:

- Tropical Ecosystems and Biogeochemical Cycles;
- Biodiversity;
- Comparative Studies of Oceanic, Coastal and Estuarine Processes;





# IAI SCIENCE AGENDA

- **Comparative Studies of Terrestrial Ecosystems;**
- **Changes in Land Use, Land Cover, and in Hydrology and Water Resources.**



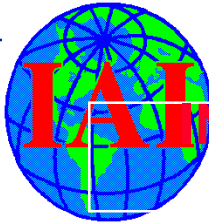




# IAI SCIENCE AGENDA

## 4. Integrated Assessments, Human Dimensions and Applications.





## INTER-AMERICAN INSTITUTE FOR GLOBAL CHANGE RESEARCH

(Signatory & Ratifying Countries)

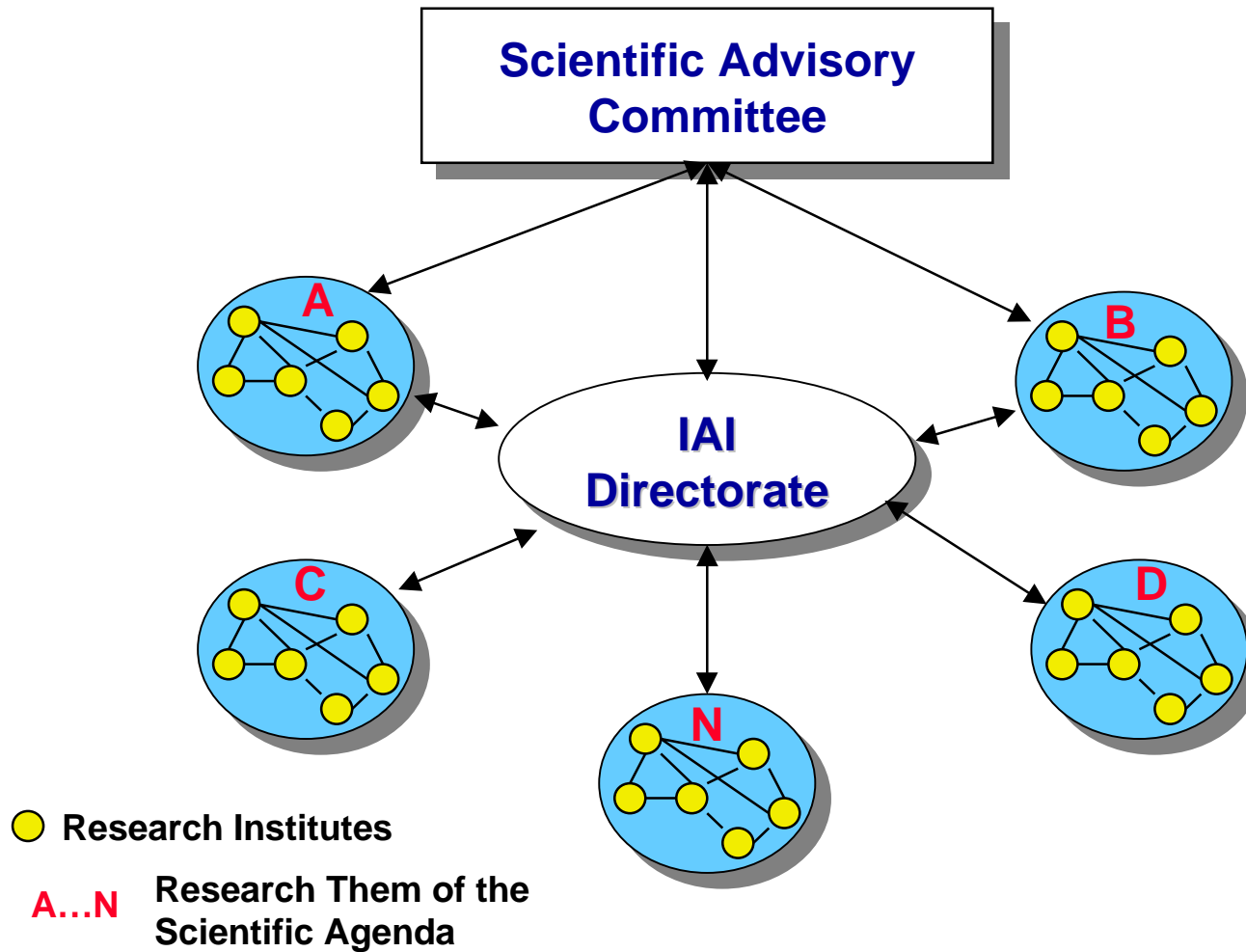
(Agreement entered into force: March 11, 1994)

1. Argentina \*
2. Bolivia
3. Brazil \*
4. Canada \*
5. Chile \*
6. Colombia \*      \* Ratified as of March 01, 1998
7. Costa Rica \*
8. Cuba \*
9. Dominican Republic \*
10. Ecuador \*
11. Guatemala \*
12. Jamaica \*
13. Mexico \*
14. Panama \*
15. Paraguay \*
16. Peru \*
17. United States of America \*
18. Uruguay \*
19. Venezuela \*



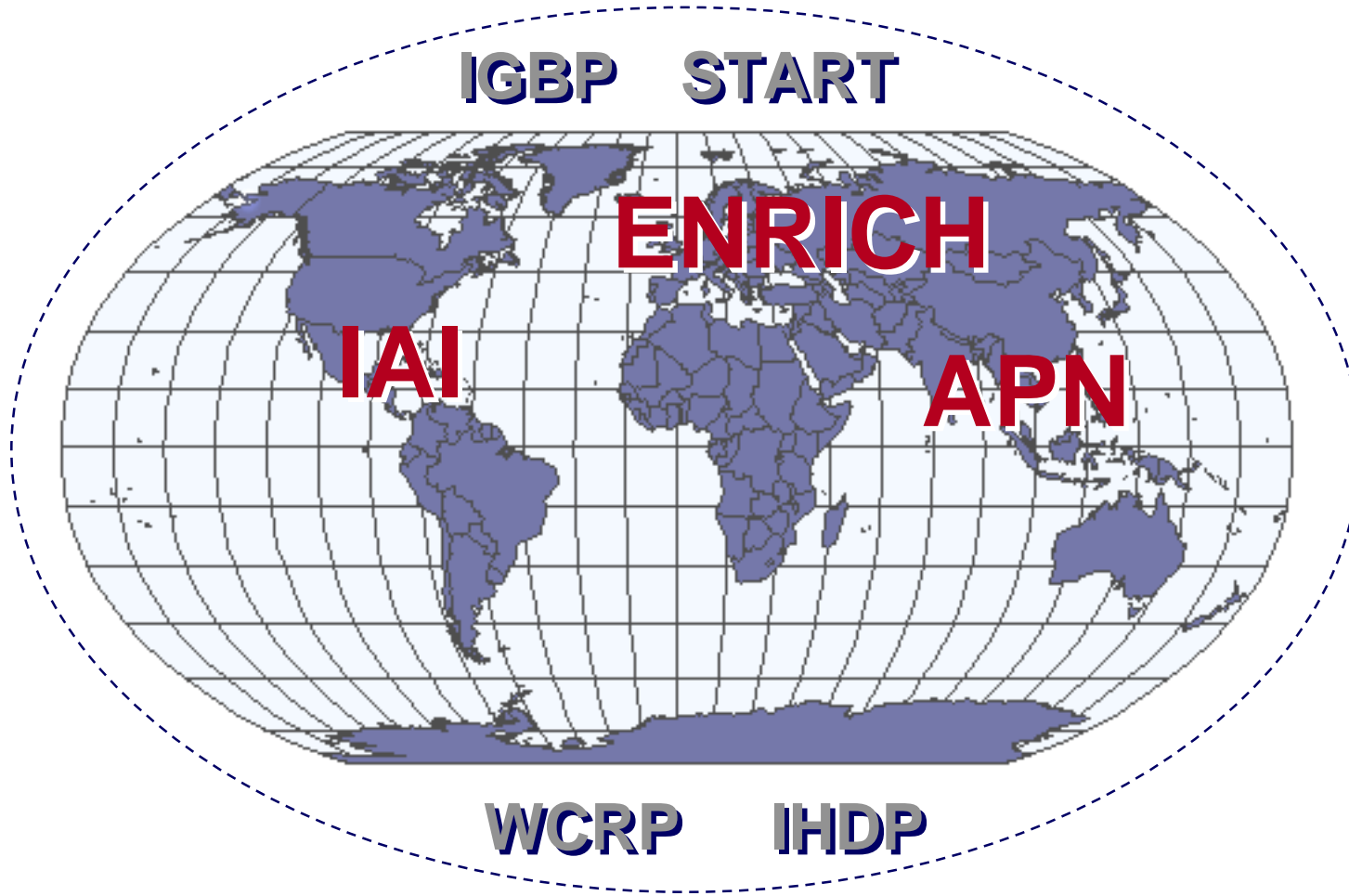


## IAI, MULTINATIONAL DISTRIBUTED NETWORK OF RESEARCH INSTITUTIONS





## REGIONAL ORGANIZATIONS FOR GLOBAL CHANGE RESEARCH





## PRESENT NATIONAL AND INTERNATIONAL PARTNERSHIPS FOR IAI

International  
Scientific  
Programs

START, IGBP, IHDP,  
WCRP, APN, ENRICH,  
IRI, UN agencies  
(WMO, UNDP)

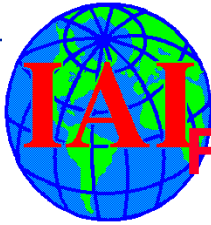
National  
Scientific  
Programs

U. of Miami  
INPE      U. of Indiana  
NASA  
CICESE      UNAM  
NOAA

**IAI**

ANPCyT      NSERC  
CNPq  
NSF      CONICYT's  
GEF

National and International Funding  
Agencies and Programs



## FUNDING MECHANISMS FOR THE IAI

- **PROGRAM FUNDING:** Provides the budget to support the long-term program activities of the IAI, e.g., data mgt., education programs, and long-term research programs.

✓ Source: Pledges by member nations based on a three-year proposal submitted by the Director and Leaders of the IAI.

- **PROJECT FUNDING:** Provides support for specific, generally limited term, research, education, training, or other relevant activities of the IAI.

✓ Source: Proposals submitted by the IAI to funding sources, i.e., Foundations, U.N. Agencies, Governments, or other sources.

- **CORE FUNDING:** Provides the budget to support the Administrative costs of the Directorate.

✓ Source: An allocation based on an annually approved budget.



# **Scientific Development**

## **(Scientific Programs and Capacity Building for the Region)**



## Start-up Grants (SG)

**One-time Awards to Encourage Investigators of IAI Member Countries to Plan Collaborative Long-term Research Projects that will Make up the Core of the Future IAI Research Network.**

**1996-1997**

**37 groups of scientists**

**US\$ 1,700,000**

**50 planning meetings**



## Initial Science Program (ISP)

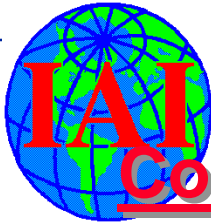
**One-time up to 3-year Awards to Initiate or to Augment On-going Scientific Activities in Research, Training and Education, Data Collection and Information, and Modeling for all the Themes of the Science Agenda.**

**1996-2001**

**40 research projects**

**US\$ 3,850,000**

**min. of 2-3 countries p/ project**



## **Collaborative Research Networks (CRN)**

- **Another Step towards the Integration of Scientists and Countries on Research Organized Around the New 4 Themes of the IAI Science Agenda;**
- **3 to 5 Year Awards to Conduct Scientific Research with the Participation of Institutions of at least 4 IAI Member Countries;**
- **The Opportunity for Planning Proposals Prepared under the Start-up Grants Program to be Transformed into Actual Research Projects or Programs.**

**1999-2003**

**14 research projects**

**US\$ 11,000,000**

**min. of 4 countries p/ project**



## Strategy for IAI Programmatic Development

Assembling scientific teams and planning research.

**Start-up Grant Program (SG)**  
1996-1997

Promoting initial scientific activities.

**Initial Science Program (ISP):**

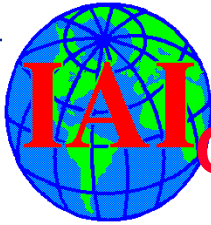
- Round I: 1996-1999
- Round II: 1997-2000
- Round III: 1998-2001

Developing research networks.

**Collaborative Research Network Program (CRN)**  
1999-2003

Expanding Scientific Capacity in the Americas.

**PESCA**  
2000-2001 US\$ 300,000  
11 projects – 2 countries



## **CAPACITY BUILDING FOR THE REGION**

- **Training and Education in Summer Institutes**

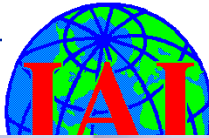
**1999-2001    US\$ 850,000    Univ. Miami**

- **Number of MSc. and Ph.D. in ISP and CRN Programs.**

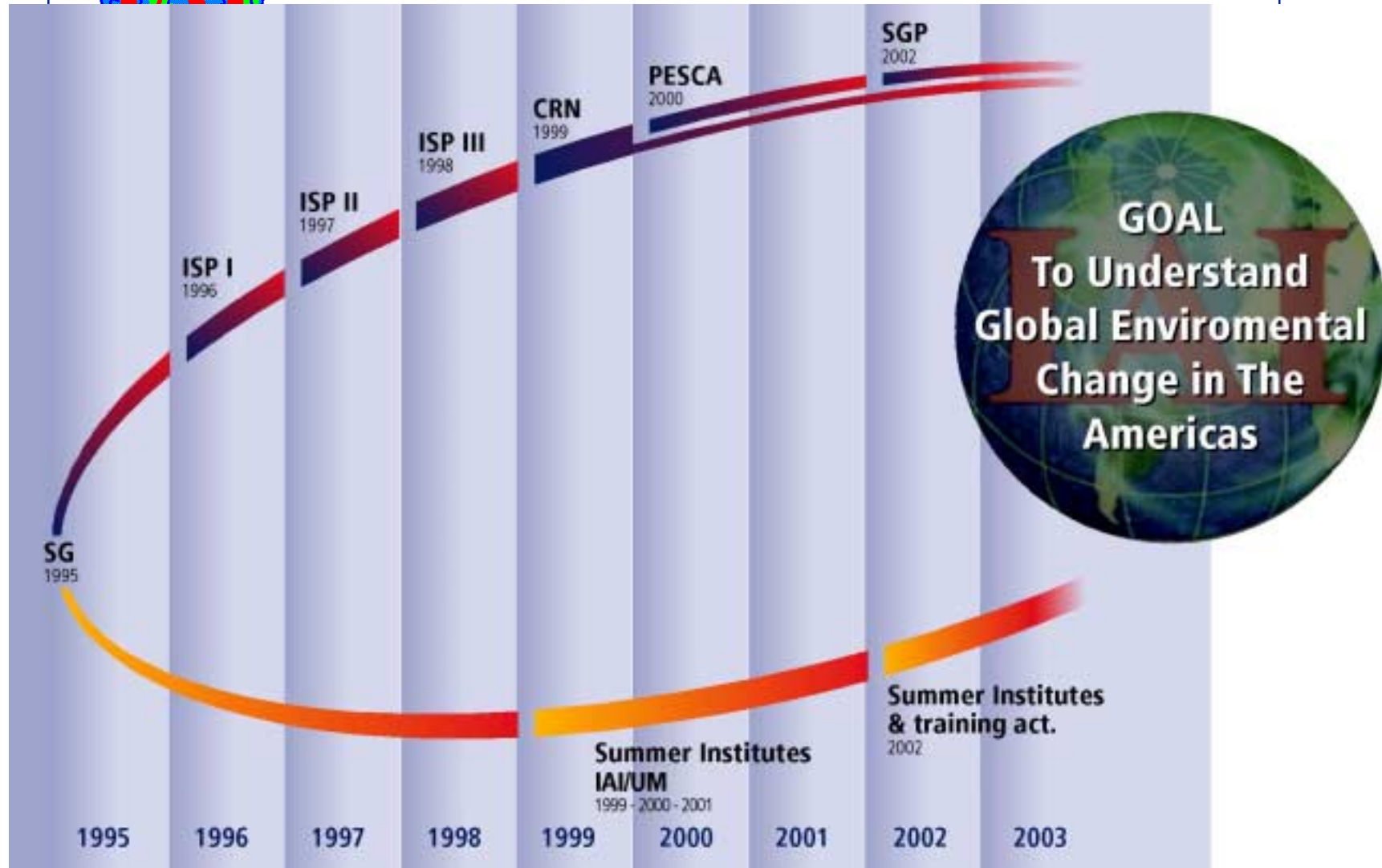
**MSc. 171    Ph.D. 137    (by 2001)**

- **Regional Cooperative Activities to Support Global Change Research: IAI/GEF/WMO Project**

**1995-1999                      16 countries involved  
US\$ 3,050,000**



## Evolution of IAI Research & Training Activities Overtime





# **IAI Data and Information System**

## **DIS**

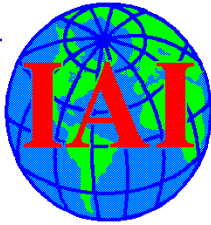


# IAI Data and Information System

## Main objectives

- **Proportionate a distributed network of nodes or/and mirrors in order to disseminate information produced at the IAI scientific projects;**
- **Offer an user-friendly structure based on the creation of Metadata\* to represent actual information, which can be downloaded;**
- **Allow the researchers/scientists to easily find information using an intuitive set of search criteria;**
- **Proportionate the access to the system by Internet;**
- **Offer the possibility of finding data from other DIS systems or/and Virtual Libraries.**

*\* Metadata can be defined as information about data. It describes the content, quality, condition or any other characteristics of that data.*



# IAI Data and Information System

## How the system works?

- The IAI-DIS Manager or the IAI Scientific Project Representatives create a metadata to represent some specific data, like an article, a poster, a presentation, etc.
- After being created and approved for liberation, the metadata is available for search and retrieval. In practical terms, this mean that everyone from Internet can access the system and search for some specific information. If there is at least one metadata which satisfies the search criteria inserted by the user, the system presents the metadata and its identification fields as a result.
- The modification to one specific metadata is restricted to the owner. This mean that nobody from Internet can modify the metadata.
- As an addition, the system allows the users to search for information in other defined DIS systems.



# **IAI Future Development and Science Agenda**



## IAI Future Development

- Much greater integration of the human dimension, global climate impacts, mitigation, assessments or applications for policy makers with science agenda.
- It must be more apparent in the IAI science agenda that IAI is trying to develop the capacity to deal with policy issues. IAI country representatives have continually stressed this point.
- In regard to funding, a modified agenda could also help to broaden



## Future Science Agenda

- Major focus of current program
- ISP 111 and PESCA programs are finished
  - Need synthesis of results
- Most CRN projects are starting Year 3
  - Peer review followed by SAC review Jan 2003
  - PI's meeting with SAC Mendoza Argentina 2003
  - International overview with IGBP SAC
  - Senior Scientist synthesis required
- **Small Grant Program will start in 2002**



## **Future Science Agenda**

- **New Science Program Funding to be supported in 2003 - aim for second CRN competition.**
- **More Emphasis on Theme 4 issues of Integrated Assessment, Human Dimensions and Applications.**
- **SAC has started Program Development.**
- **Initiation of New Call for proposals mid 2003.**
- **Southern Summer Institutes started and Northern funding renewed.**