

**INTER-AMERICAN INSTITUTE FOR  
GLOBAL CHANGE RESEARCH  
(IAI)**

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**Inter-American Institute for Global Change Research (IAI)**  
**IAI Science Grant Program – Phase II**  
**General Guidelines**

**Introduction**

The Science Grant Program – Phase II (SGP-II) is a repeat program of the IAI. This program is designed to encourage the development of research networks composed of scientific teams from across the Americas that focus on global change problems of regional importance. The first IAI program envisaged a sequence of events starting with Start-up Grants (SG) to allow review of global change issues and progress, followed by the Initial Science Programs (ISP) and ending with the Collaborative Research Network (CRN). The first phase of this cycle of programs started in 1995 and resulted in the funding of the first set of CRNs in 1999. The second phase encourages further development of research work within the IAI Science Agenda or considers building on recent programs and focusing on issues not fully explored in earlier grants.

**Background**

**The mission of IAI is to develop the capacity of understanding the integrated impacts of present and future global environmental change on regional and continental environments in the Americas and to promote collaborative research and informed action at all levels.**

Implicit in the mission statement are the founding principles of the IAI:

- Scientific excellence;
- Relevance to regionally-defined global change issues;
- Contribution to capacity building;
- Multinational and multidisciplinary collaboration;
- Promotion of regularized data and information exchange;
- Policy relevance and usefulness to decision and policy makers.

**Past and Present IAI Activities in Support of Networks Development**

An important aspect of the mission of IAI is the development of networks of scientists and scientific institutions that work collaboratively on global change issues of regional importance. Effectively addressing these regional global change issues requires the development of an active scientific network that crosses international boundaries.

**IAI Start-Up Grant Program (SG):** In 1995, IAI began the initial stages of its scientific network development through the United States' National Science Foundation IAI Start-Up Grant Program. This program of US\$ 2.0 million provided the support for 37 teams of scientists across the Americas. The objective was to facilitate the development of networks among institutions in IAI member countries, and to foster the development of formal proposals to the IAI for longer-term programs and activities related to global change themes and the further development and establishment of collaborative research networks.

**IAI Initial Science Program (ISP):** This program was designed to support multi-national teams conducting focused global change research or education. The IAI has allocated approximately US\$ 3.8 million for this activity and has supported 39 research projects under this program for the period 1995-2001. The Initial Science Program has also contributed to foster the development of research networks

***Collaborative Research Network (CRN):*** This program is designed to encourage the development of research networks composed of scientific teams from across the Americas that focus on global change problems of regional importance. Starting in 1999, this latest IAI initiative has established the global change research networks in the Americas. The networks are multinational and multidisciplinary in nature each involving the participation of scientists from institutions of at least 4 IAI member countries and, in most cases, participation of both natural and social scientists. These networks involve the participation of 150 scientists and nearly 100 institutions in 16 IAI member countries. The overall investment for the 5-year duration is approximately US\$ 11 million. The groundwork for this unique program was the Start-up Grants (SG).

## **IAI Science Agenda**

In an effort to more clearly communicate scientific priorities and to include issues of emerging importance in the global change sciences, the IAI Scientific Advisory Committee has reorganized the original Science Agenda. The reorganized Science Agenda (approved by the IAI Conference of the Parties V, Arlington, 1998) integrates the 7 themes of the original Science Agenda into a new framework of 4 themes, and incorporates new issues of increasing importance

### ***I. UNDERSTANDING CLIMATE VARIABILITY IN THE AMERICAS***

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

The focus of this theme is on the documentation of climate variability in the Americas and its links to changes in natural systems and societal impacts. The goals are first to understand the ocean-land-atmosphere interactions and the key processes that cause climatic variability on timescales of seasons to decades (e.g. ENSO, land falling hurricanes, and drought frequency); secondly, to assess the impacts of these climatic factors on key socioeconomic sectors (e.g. water management, energy availability, agricultural production, fisheries, public health, etc.).

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

Climate and land-use changes are inter-related processes that affect the functioning of natural ecosystems and the quality of resources available for human use. The IAI encourages comparative analyses of natural and anthropogenic systems, from the tropics to temperate and cold latitudes, including terrestrial, coastal and oceanic environments, in order to investigate relationships and interactions at regional and global levels, as well as understanding the consequences of global change on these systems.

### ***III. CHANGES IN THE COMPOSITION OF THE ATMOSPHERE, OCEANS AND FRESH WATERS***

- ***High Latitude Processes (Ozone);***
- ***Biogeochemical Cycles;***

- ***Comparative Studies of Regional Air and Water Pollution.***

The focus of this theme is on documenting and understanding processes that modify the chemical composition of the atmosphere, inland waters and oceans in a manner that affects productivity and human welfare. Under this theme topics related to the following would be appropriate: (1) changes in ozone and UV radiation, (2) enhancements of forcings due to radiation through emissions of greenhouse gases and aerosols, and (3) air and water pollution.

**IV. INTEGRATED ASSESSMENT, HUMAN DIMENSIONS AND APPLICATIONS**

This IAI theme focuses on projects, which integrate across the natural science themes and include a human dimensions component and/or focus on the application of research to policy. The intent is (1) to advance our understanding related to the human causes and consequences of global change in the Americas (e.g. anthropogenic land-use change and climate impacts); (2) to stimulate the development of applications that enable decision makers to effectively use scientific results. (e.g. ENSO forecast applications, land-use, water management, biodiversity conservation and health effects); and (3) to develop integrated models of interactions between environmental change and social systems that can be used to evaluate the state of knowledge or to assist in setting policies and/or decision making processes to promote equilibrium between societal development and environment.

**Program Description**

This new opportunity announced as “IAI Science Grant Program Phase II” is an open call; awards will be made on a competitive basis according to the evaluation criteria described in this document.

The IAI SGP-II are one-time awards that may be used for activities that in the future will facilitate the development of larger Science Programs and potentially lead to new consolidated Research Network Proposals.

The grants may be used to support meetings or research work falling within IAI research themes. Fifteen to twenty awards shall be granted under the SGP-II and shall be limited to US\$ 30,000 for periods of up to one-year (meetings limit to US\$ 10,000).

In this competition, high priority will be given to the participation of young scientists of the Americas. Thematically, priority will be given to applications within the theme IV of the IAI Science Agenda, which have not been the subject of earlier IAI SG, IAI ISP, or IAI CRN grants and which have the potential of creating research thrusts that focus on global change issues of regional importance:

- Theme IV has not received as much attention as themes I, II and III, and there is an increasing pressure in order to develop capabilities of regional assessments and understanding how changing social systems and human migrations effect the management of urban and coastal zones, water resources (water basins), and land-cover.
- There is also increased need to advance on the generation of sound environmental knowledge upon which the design of policies to reduce, mitigate or sequester greenhouse gases can be built.

Applicants should consult the IAI website (<http://www.iai.int>) to obtain details on earlier and current research activities.

### **Eligible Institutions and Fundable Activities**

Institutions eligible for IAI Science awards are colleges, universities, professional societies, not for-profit and non-academic institutions located in an IAI ratified country. These institutions must have formal research programs in at least one of the four scientific themes of the IAI.

All funded proposals will be collaborative efforts with Principal Investigators (PIs) or Co-Principal Investigators (Co-PIs) representing institutions from at least three of the IAI ratifying countries. The following countries have ratified the IAI agreement as of May 2001: Argentina, Brazil, Canada, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, Guatemala, Jamaica, Mexico, Panama, Paraguay, Peru, the United States, Uruguay and Venezuela. Institutions from signatory countries that are not yet ratified are welcome to participate as Co-PIs, but they will not count toward the required three ratified countries.

### **Observations regarding participating Investigators, Institutions and Countries:**

1. Country participation will be considered based on the location of the institution headquarters that PIs and co-PIs represent, and not on the investigator's nationality. Similarly, visiting professors, visiting scientists, and international graduate students will be considered representing institutions with which they have formal work affiliation (affiliation to institution in home country and commitment to returning to home country). Letters of commitment to indicate formal affiliation must accompany the proposals
2. A rigorous evaluation will be made on the role of each participating PI, co-PIs, and graduate students. In the program proposals include a brief and clear description of the role of each participant in the program.
3. Original letter of commitment from all participating investigators and their institutional representatives must accompany proposals. In the letter of commitment, make sure to include: PI, co-PI or institutional representative's name, title, affiliation, complete mailing address and contact numbers, and signature. Other necessary information will be project title, name of the project PI and a statement declaring that both the investigator and institutional representatives are committed to the project and in-kind contributions from the institution, whenever applicable.
4. The IAI will not accept the change of Principal Investigator (PI) and leading institution, except for reasons of death or serious illness. Any changes proposed to the composition of the original project team must have the written agreement of all participating investigators and institutions. PIs will be responsible for keeping the IAI informed on the inclusion and or changes of new participating investigators, institutions and their role in the research project.
5. Support to graduate students should go most preferably to Latin American nationals from ratifying member countries.
6. SGP-II funds may only be managed through institutionally controlled accounts and may not be deposited in individual bank accounts. In addition, IAI will only make awards to lead, which will then be responsible for the transfer and accountability of funds for Co-PIs working in other institutions.

### **Overhead Charges**

Up to ten percent of the total proposed budget may be charged as overhead. However, the IAI strongly encourages lower overhead rates. Proposing institutions are encouraged to document their normal overhead charges in proposals submitted to the IAI. Any reduction in normal overhead practices will not be used by the IAI as a criteria for evaluating proposals, but will be considered as a national contribution to the IAI's scientific programs and activities.

## **Final Report**

Within 90 days after the expiration of the grant, the Principle Investigator is required to submit a Final Project Report to IAI. In addition, it will be expected that projects be responsive to IAI needs and work with the IAI Directorate as necessary.

## **Evaluation Criteria**

Full proposals will be reviewed on the basis of the following criteria.

The primary considerations for a successful SGP-II proposal are the scientific excellence of the proposed work and the prospect of developing a competitive science proposal on completion of the SGP-II. SGP-II proposals will be reviewed in accordance with a standard IAI external merit review process, using a panel of peer-reviewers from the IAI region. Reviewers of the proposals will consider the following evaluation criteria supplied in the Narrative:

- *Scientific excellence and technical soundness* ..... 1
- *Network building*..... 2
- *Multi-national collaboration*..... 3
- *Policy relevance of proposed activity*..... 4
- *Level of capacity building* ..... 5
- *In-kind contributions* ..... 6
- *Appropriateness of the budget request for the proposed activity* ..... 7

## **Review Process**

Proposals will be evaluated in a number of phases. Each proposal will be sent by mail to 3 or 4 specialists for review. After the completion of the mail review, proposals will be evaluated and ranked by an international panel of global change scientists, using the mail review recommendations. Next, the IAI Scientific Advisory Committee (SAC), using the recommendations of the Panel as well as programmatic criteria, will forward recommendations to the IAI Directorate, which will then make a final recommendation to the IAI Executive Council. Final approval will be made by March 2002.

## **Proposal Preparation**

***(Proposals that do not meet all the requirements outlined below will not be evaluated.)***

The proposal should be composed of the following sections:

**Proposal Cover Sheet:** please include all required information requested in the cover page.

**Title of Project:** the title of the proposed project is one of several items used to announce or advertise to the general public and scientific community the nature of the project supported by IAI funds. Include informative key words that indicate for example the discipline and the target audience.

**Table of contents:** include a listing of major sections and subsections of the proposal.

**Executive Summary:** 1 page limit. Please have the Executive Summary on a separate sheet.

Include the title, project PI, and a list of major institutions involved. The Executive Summary is very important, as it will be a primary means by which panel members who are not primary or secondary reviewers will form a judgement of your project.

**Introduction/Objectives:** this section should clearly outline the objectives of the project and briefly describe the relevance of the work in furthering the IAI mission, goals, and scientific development.

**Problem and Need:** in this section provide a problem statement and concise background.

**Approach:** in this section provide (1) an overview of the project, (2) proposed meeting or activity objectives, schedules and, locations, (3) proposed participants, including their nationalities and affiliations and relevant previous experience, (4) capacity building activity, (5) policy relevance, (6) details of in-kind contributions and their significance to the development of the project, (7) details of recent meetings (if any) on this subject

**Summary Statement:** outline the expected results of the project and clearly state the significance of the work for dealing with global change issues in the Americas.

#### **References**

**Plan and Timetable:** In a separate page, state how the activities will be organized and conducted and associated expenditures using a timeline and indicating when each proposed activity will take place.

**Budget Sheet:** see budget sheet attached

**Appendices:** (a) include no more than a 1 page curriculum vitae for each participating PI and Co-PI; (b) letters of commitment with proper signatures from all participating PIs, Co-PIs and authorized institutional representative (IR) from the PI's institution and institutions offering in-kind contributions. The IR may not be the PI and should be the dean, rector of the faculty/school, grants administrator, or equivalent or superior authority, who can commit institutional in-kind contributions and investigator's time to the project. The letters of commitment should include a description and reasonable estimate of all in-kind contributions: nature (e.g. payment of salary, use of laboratories, etc.): and an estimate in US\$ by each donating institution; (c) a list of 5 potential reviewers including institution, areas of scientific expertise and contact information (mailing address, telephone, fax numbers and e-mail address).

#### **Proposal Submission**

Proposals that do not meet all of the following requirements will not be evaluated.

**Length:** the proposal length including the first cover page (page with PI and IR), text and references, budget pages and explanations, annual plan and time-table may be no more than 18 pages. The appendices (curriculum vitae, letters of commitment) may be excluded from the page count.

**Spacing and font Size:** 12-point font, single-spaced.

**Number of copies:** please include 20 copies. The IAI requires that at least 1 set include original letters of commitment with proper signatures. The remaining 19 may be copies. Proposals, which do not include all 20 copies, will not be evaluated.

**Language:** proposals in English or Spanish will be accepted.

**Deadline:** Proposals must be at the IAI Directorate by no later than October 1, 2001. The entire proposal package, including letters of commitment, curriculum vitae, etc must arrive together. Proposals sent by fax or e-mail will not be accepted. The IAI will not accept faxed or e-mail letters of commitment from investigators nor from institutional representatives.

Proposals should be sent to:

**Instituto Inter-Americano para Pesquisa em Mudanças Globais (IAI) - Ref. SGP-II**  
**c/o INPE**  
**Av. dos Astronautas, 1758**  
**São José dos Campos, SP 12227-010**  
**BRAZIL**

The IAI Directorate will acknowledge receipt of those proposals received by **xxx, 2001**.

We recommend that proposals be sent by express mail service to ensure arrival at the Directorate by xxx, 2001.