### RESEARCH PROPOSALS SUBMITTED TO IAI LIKELY TO BE FUNDED

This document attempts to show that, despite the significant amounts of funds that IAI has allocated in the region to support high quality global change research, there is still a significant number of very well scored research projects that cannot be supported with present levels of funding. However, if new funding sources are available, another set of very good scientific multinational, multidisciplinary projects might enlarge present scientific IAI activities.

Three main programs were supported by IAI since 1995. The Start-up Grants (SG) Program conducted from 1995 to 1997 was designated to encourage investigators of different institutions and countries to begin collaborative planning activities on the design of the long-term research projects that will next form the core of IAI research networks. Under this program, 90 proposals were submitted and 37 of them were finally awarded. The program was funded at a total level of 1,700,000 USD.

From 1996 to 2001, the IAI will be supporting also the Initial Science Program (ISP). This program offers scientists and institutions of the region up to three-year grants to conduct research and/or capacity building multinational activities. The program is structured in three phases (ISP I, ISP II, and ISP III), which respectively started in 1996, 1997, and 1998. Almost 200 proposals were submitted, 37 of which were awarded with an overall support of 3,850,000 USD.

Finally, IAI will start by mid 1999 the implementation of its Collaborative Research Network (CRN) Program. This program is designed to establish research networks linking scientists and institutions from at least four member countries that will conduct research projects addressing one or more themes of IAI Science Agenda. A total of 70 proposals was submitted in response to the announcement of opportunity and finally 14 of them were awarded. The program which involves scientists from nearly all the IAI member countries is funded for a total of 10,800,000 USD for a five-year period.

Although under each of these programs, the IAI is being able to fund a significant number of high quality research projects, one must recognize that current funding does not allow to support all the scientifically excellent and regional relevant projects that were submitted to IAI. This is particularly the case of many proposals submitted under the Third Round of the Initial Science Program and the Collaborative Research Network Program. The external mail and panel reviewers judged these proposals as having high scientific merit, and addressing issues of regional relevance. Should the level of funds be highest, no doubt many of these proposals would have been also recommended by the IAI Scientific Advisory Committee to be supported under IAI programs.

Next, the list of those proposals scored "good" to "very good" or more is presented. Information also includes name of the Principal Investigators, participating countries, theme(s) of the IAI Science Agenda addressed in the proposal and requested budget.

Attached you will also find the executive summaries of the 23 proposals listed in this document.

# Proposals Submitted under the Initial Science Program (Round III) Scored "Good" to "Very Good" or more

|    | Title  | Score | PI         | Participating                  | IAI Science  | Proposed P. J. A. LIGD |
|----|--|-------|------------|--------------------------------|--------------|------------------------|
|    |  |       |            | countries                      | Agenda Theme | Budget, USD            |
| 1  | Biomass burning effects on the lower atmosphere in tropical forest-savannah ecosystems   | 4,5   | Kirchhoff  | BRAZIL + USA, Bolivia          | 3            | 120,000                |
| 2  | ENSO-Climate Change and Regional<br>Fisheries: Juvenile fish growth research<br>and monitoring program   | 4.5   | Castro     | CHILE + Argentina, Brazil, USA | 1, 4         | 115,000                |
| 3  | Monitoring the Chacoan low-level jet<br>and Bolivian altiplano circulations with<br>a regional sounding network  | 4.3   | Douglas    | USA + Chile, Argentina         | 1            | 128,000                |
| 4  | Climate-related global changes in the wider Caribbean: modelling, monitoring, impacts and adaptations  | 4.0   | Singh      | CANADA + Cuba, USA Barbados    | 1, 4         | 130,000                |
| 5  | Interannual Variability of the<br>Atmospheric Water Cycle for the<br>Cuenca Del Plata  | 4.0   | Berbery    | USA + Brazil, Argentina, Chile | 1, 2         | 125,000                |
| 6  | Effects of climate change and variability on ecosystems at the landscape scale   | 4.0   | Acevedo    | VENEZUELA + Brazil, USA        | 1, 2         | 130,000                |
| 7  | Global climate change, Humboldt<br>Current dynamics, and the population<br>dynamics of coastal species   | 4.0   | Pineda     | USA + Mexico, Chile, Peru      | 2, 1         | 125,000                |
| 8  | The economic dynamics of deforestation and carbon fluxes in Brazilian Amazon   | 4.0   | Reis       | BRAZIL + USA, Costa Rica       | 2            | 130,000                |
| 9  | Climatic Variability, Ecosystem response, Public Policy and Household (Brazilian Co PI Vulnerability in the Semi-Arid Regions of the U.S., Mexico, Brazil, and Chile is working in the U.S.) | 3.5   | Hutchinson | USA + Mexico, Brazil           | 1, 2, 4      | 130,000                |
| 10 | Climatic and Oceanic Variability in the ACCIS Region and its Impacts on Human Communities  | 3.5   | Jara       | CHILE + Canada, USA, Argentina | 2, 1, 4      | 130,000                |
| 11 | Training and Education Activities in support of PIRATA   | 3.5   | Tanajura   | BRAZIL + USA, Argentina        | 2, 4         | 90,000                 |
| 12 | Estimación de Niveles de   | 3.5   | Romero     | CHILE + Costa Rica, Uruguay    | 3, 4         | 125,000                |

|    |  |     |              |                                  |      | 1        |
|----|--|-----|--------------|----------------------------------|------|----------|
|    | Contaminación por la Accion de los       |     |              |                                  |      |          |
|    | BTEX y NO2 en Zonas Urbanas. Su          |     |              |                                  |      |          |
|    | influencia potencial en Cambio           |     |              |                                  |      |          |
|    | Climático a traves de la Química de los  |     |              |                                  |      |          |
|    | Radicales OH.                            |     |              |                                  |      |          |
| 13 | Strengthening of Chile's and Mexico's    | 3.5 | Figueroa M.  | CHILE + USA, Mexico, Peru        | 2    | 130,000  |
|    | capability to use remote sensed data     |     |              |                                  |      |          |
|    | (altimetry, wind scaterometry, ocean     |     |              |                                  |      |          |
|    | colour data) for coastal oceanography    |     |              |                                  |      |          |
|    | application in the S. E. and N.E. acific |     |              |                                  |      |          |
| 14 | Nuevo enfoque en el estudio              | 3.5 | Singer       | ARGENTINA + Uruguay, USA         | 2    | 115,000  |
|    | comparativo de los efectos del cambio    |     |              |                                  |      | ,        |
|    | climático global en suelos de            |     |              |                                  |      |          |
|    | ecosistemas agricolas templados          |     |              |                                  |      |          |
| 15 | Impacto de la Radiación Ultravioleta en  | 3.5 | Helbling     | ARGENTINA + USA, Chile           | 3    | 100,000  |
|    | el Filoplancton de latitudes medias:     |     |              |                                  |      |          |
|    | Aclimatación y cambios específicos en    |     |              |                                  |      |          |
|    | la comunidad                             |     |              |                                  |      |          |
| 16 | The effect of large-scale climate        | 3.5 | Amador Astua | COSTA RICA + Mexico, Cuba,       | 1, 2 | 105,000  |
|    | variability on the prediction of local   |     |              | Brazil, USA, Colombia            |      |          |
|    | hydroclimatology                         |     |              | , ,                              |      |          |
| 17 | A vernacular Internet Course in Global   | 3.5 | Takle        | USA + Argentina, Uruguay, Brazil | 4    | 110,000  |
|    | Change for Senior Undergraduate and      |     |              |                                  |      |          |
|    | Graduate Students                        |     |              |                                  |      |          |
| 18 | Regional Training and network            | 3.5 | Hunt         | CANADA + Peru, USA, Brazil       | 4, 1 | 120,000  |
|    | Development to Facilitate the            |     |              | , ,                              | ,    | <u> </u> |
|    | Application of ENSO Information to       |     |              |                                  |      |          |
|    | Crop Management Decision Making          |     |              |                                  |      |          |
|    | - 1                                      |     |              |                                  | 1    |          |

### Score IAI Science Agenda

3 = Good

1 = Understanding Climate Variability in the Americas.

4 = Very Good

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

5 = Excellent

3 = Changes in the Composition of the Atmosphere, Oceans and Fresh Waters.

4 = Integrated Assessments, Human Dimensions and Applications.

## Proposals Submitted under the Collaborative Research Network (CRN) Program Scored "Good" to "Very Good"

|   | Title  | Score | PI       | Participating Countries                         | IAI Science<br>Agenda Theme | Proposed Budget<br>USD |
|---|--|-------|----------|---|-----------------------------|------------------------|
|   |  | 10.5  | T. 11    | TYGA NG CAN | 2.1                         | I 000 000              |
| 1 | Collaborative Research Network: integrated desertification assessment  | 3.5   | Reynolds | USA + Mexico, Argentina, Chile                  | 2, 4                        | 990,000                |
| 2 | Hydroclimatology and nutrient dynamic of Rio de la Plata and Pato Mirim lagoon coupled land-coastal ocean system.      | 3.5   | Nagy     | URUGUAY + Argentina, Brasil,<br>USA             | 2                           | 1,000,000              |
| 3 | Response of estuarine systems in the Americas to global and regional change.   | 3.5   | Perillo  | ARGENTINA + Brasil, Canada,<br>Chile, USA       | 2                           | 1,000,000              |
| 4 | Impact of UV on aquatic primary production: a comparative study of phytoplankton in subpolar environments.             | 3.5   | Helbling | ARGENTINA + Canada, Mexico,<br>USA              | 3, 2                        | 450,000                |
| 5 | Interrelationship among climate variability, climate change and persistence organic pollutant cycling in the Americas. | 3.5   | Kidd     | CANADA + USA, Argentina, Mexico                 | 1, 3                        | 950,000                |

### **Sources of Funding**

To date sources of funding to support IAI programs have been:

### USD

| US National Science Foundation (NSF)                               | 16,000,000 |
|--|------------|
| US National Oceanographic and Atmospheric<br>Administration (NOAA) | 60,000     |
| US National Atmospheric and Space Administration (NASA)            | 350,000    |
| Argentinean Agency for the Promotion of Science and Technology     | 800,000    |
|  | 17.210.000 |