

IAI Science Advisory Council Nominations for 2010

During 2010 two SAC members (Rana Fine who has served 6 years and Maria Carmen Lemos, who is not seeking a re-nomination) need to be replaced. In addition three members (Hal Mooney, Ramon Pichs and Carolina Vera) have asked to be re-nominated to the SAC. Hence the areas of priority that these openings will be seeking to fill are:

1. Climate Science: an essential part of the IAI research agenda, it focuses on the physical aspects of climatic change, climate forcing and feedbacks. Potential disciplines and research focii (but not limited to): atmospheric sciences, atmospheric chemistry, physical oceanography, paleoclimate, climate modeling, climate and impacts projections, etc.
 - a. Areas of priority: climate modeling
2. Ecosystems and climate: focusing on the interaction of climatic change and ecosystems sustainability (including diversity and governance). It includes (but it is not limited to) the areas of biodiversity, ecosystem management, carbon cycle, hydrology and water resources management, land use and change.
 - a. Ecosystem biodiversity and climate
3. Policy and Human Dimensions of global change: seeks to understand climate drivers, potential impacts, response (mitigation and adaptation) of human systems and how to improve the interaction between environmental science (including physical and social aspects) and decision-making (public and private). Includes the social sciences (political science, economics, geography, anthropology, etc), behavioral sciences and decision sciences.
 - a. Vulnerability Assessment
 - b. Mitigation and Adaptation
 - c. Science-policy interaction
4. Integration and modeling: cross-cutting research seeking to integrate across human and ecological systems (SES) and across science and policy. Seeks to understand the iterations and feedbacks between different systems and the diverse actions that can be taken to mitigate and adapt to climate change.
 - a. Resilience (social-ecological systems)
 - b. Social Ecological Systems (SES) modeling

The table below shows current members' contributions for these areas (current members who are seeking re-nomination are in yellow, rotating out member in blue and member not seeking re-nomination in green).

Member	IAI Science Theme	Priority Areas
Walter Baethgen	Human Dimensions and Policy	
Telma Castro	Climate, Ocean, Atmosphere	
Rana Fine	Climate, Ocean, Atmosphere	
Maria Carmen Lemos	Human Dimensions and Policy	Policy and human dimensions of global change
Luis Jose Mata	Ecosystems, BD,LU, WR	
Hal Mooney	Ecosystems, BD,LU, WR	Ecosystems and climate
Frank Muller-Karger	Climate, Ocean, Atmosphere	
Ramon Pichs	Human Dimensions and Policy	Policy and human dimensions of global change
Juan B Valdes	Ecosystems, BD,LU, WR	
Carolina Vera	Climate, Ocean, Atmosphere	Climate Science

Criteria for SAC Nominations

For the SAC to be able to carry out its mission of advising the Directorate on science matters it is important that the following criteria be followed:

Basic criteria:

- Scientific excellence
 - The pursuit of scientific excellence is a hallmark of the IAI creation and a critical marker of its success. Scientific excellence includes research of high intellectual merit (that which seeks to advance the frontiers of science using robust methods) and high societal impact (that which has the potential to harness such research in innovative ways to help solve society's problems and improve well being of ecosystems and livelihoods). Scientific excellence is usually assessed through well-tested ways such as peer-reviewed publications in prestigious scientific magazines, sponsored research, service to the profession and society, number of citations, awards and recognitions.
- Geopolitical balance
 - SAC nominations should seek to strike regional balance and fairness (for example between North, Central and South America & the

Caribbean) as well as between countries with more or less developed research/institutional apparatus to better distribute interests and decision-making power across the continent.

- Gender balance
 - SAC nominations should strive to achieve gender balance

Second tier considerations:

- Ability to engage in interdisciplinary research. Many recent documents focusing on global change science (cites) have highlighted the criticality of integrated and interdisciplinary research not only to better understand global changes in their many facets (physical, human and environmental) but also to support sound decision-making. Understanding positive and negative feedbacks between different systems and decisions is vital for the sustainability of Earth as a social-ecological system.
- Representation of science in the Americas: SAC members' foci and research output should represent the best science available in the Americas as a means to advance science and support decision-making across national, regional and global scales.
- Ability to cross science-policy barriers and interact with stakeholders and ability to create and maintain research networks with high policy-relevant output. Given the urgency of many of the decisions necessary to mitigate and adapt to global change, SAC members should strive to straddle the science-policy divide and work diligently to facilitate and support the production of science that is relevant, credible, legitimate and usable by decision-makers in the Americas.