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Regional Workshop on Sustainability Science: Science and Technology for Sustainable Development

Pre-proposal
G.C. Gallopín

Background:

In October 2000, two dozen scientists, drawn from the natural and social sciences and from across the world, convened at Sweden's Friibergh Manor to explore the intellectual questions underlying a transition to sustainability that will require the emergence and conduct of a new field of scientific and technological inquiry—sustainability science. The Workshop explored this issue from three perspectives:

- **Core Science Questions:** What are the core scientific questions and issues that must be addressed in the decades ahead that will form the foundations for sustainability science and technology,
- **Research Strategies:** What research strategies will be required to enable the scientific inquiry and facilitate the research to address these core questions of sustainability science, and
- **Institutions and Infrastructure:** What innovations and changes will be required to more fully enable the institutions and infrastructure essential to the conduct of sustainability science and technology.

The workshop participants concluded that the world's present development path is not sustainable and that efforts to meet the needs of a growing population in an interconnected but unequal and human-dominated world are undermining the Earth's essential life-support systems. The extraordinary complexity of the challenges that lie ahead is suggested by today's emerging interactions among global environmental changes and the profound transformations underway in social and economic life. These include such diverse alterations of the earth as climate warming, land transformation, and loss of biological diversity, together with social transitions including a population that is growing more slowly, while aging and urbanizing; an economy that is globalizing while increasing both wealth and inequality in the face of persisting poverty; and a system of resource utilization that in the energy, manufacturing and agricultural sectors is making more with less even as it increases its overall demands on the earth to unprecedented levels. In short, sustainability science seeks to improve and extend on the substantial but still limited understanding of nature-society interactions gained in recent decades. Further and most importantly, there is a growing body of evidence and experience that unavoidably suggests that the needed understanding must encompass the interaction of global processes within the context of ecological and social characteristics in particular places and sectors. The regional character of much of what sustainability science is trying to explain means that relevant research will have to learn how to integrate the effects of key processes across the full range of scales from local to global.

Purpose:

To implement a Workshop on Sustainability Science focused on discussing, from a regional perspective, the need and priorities for a new scientific and technological field of inquiry responding to the challenges of sustainable development. The Workshop will be an informal, intellectual process, acting as a laboratory of ideas.

Products:

A report of the meeting, including contributions and the conclusions of the gathering, published in English, Portuguese and Spanish. A few short, kick-off papers will be commissioned before the meeting. Results from the Friiberg workshop will be made available. Those will be included in the publication.

The initial nucleus of a regional network on sustainability science.

Conveners:

ECLAC, UNESCO and, being discussed, the Inter-American Institute for Global Change Research (IAI).

Participants:

Around 25-30 participants from the countries of the region, including natural and social scientists, technologists, specialists on social studies of science, and representatives from national scientific organizations and from business. Participants will be acting in their personal capacity, not as governmental or institutional delegates.

Venue:

To be defined. Candidate cities are Rio de Janeiro and Brasilia.

Date:

Around mid 2001.